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ORIGINAL LECTURES.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

By Dr. McCALL ANDERSON,

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Physician to the Western Infirmary, and to the Special Wards for Diseases
of the Skin.

THE FORMS OF CUTANEOUS ERUPTION.

THE forms of cutaneous eruption, or the lesions of the skin, as they are termed, constitute the basis of the classification of Willan, which for so long held sway in this country. As has been well remarked by Erasmus Wilson, they are the alphabet of dermatology—the letters, out of which are constructed the words signifying the various diseases of the skin. They are divided into two groups—

I. The Primary lesions.

II. The Secondary lesions.

The former are the first indications of disease at the point under observation; while the latter are secondary to, and succeed, some previous lesion.

I. PRIMARY LESIONS OF THE SKIN.

These are eight in number, viz.:—

- | | |
|---------------|--------------|
| 1. Maculæ. | 5. Pomphi. |
| 2. Papulæ. | 6. Vesiculæ. |
| 3. Tubercula. | 7. Bullæ. |
| 4. Phymata. | 8. Pustulæ. |

1. *Maculæ*.—By this term is meant stains, discolourations, or alterations of colour of the skin, which are unaccompanied, as a rule, by elevation. (a.) They may be *chemical*, of which we have familiar illustrations in the stains produced by Iodine or Nitrate of Silver. (b.) They may be *pigmentary*, that is, due to the deposit of pigment in the mucous layer of the epidermis, as in the case of Lentigo (freckles); but while pigmentary stains are often primary lesions of the skin, they are also very frequently secondary, as in the case of the coppery stains so frequently left after the disappearance of syphilitic eruptions. (c.) Or they may be *inflammatory*, as in the case of the simplest of all inflammations of the skin—Erythema. (d.) Or they may be *hæmorrhagic*, that is, due to the extravasation of blood into the substance of the skin, as in the case of Purpura. Hæmorrhagic are distinguished from inflammatory macules by the absence of heat or itching, or of scaliness of the surface (desquamation); by there being no elevation above the level of the skin, as a rule; and above all, by the colour not disappearing temporarily on pressure. Hæmorrhagic stains are usually primary, but they may be secondary; thus, in Erythema nodosum, rupture of the capillary bloodvessels may take place in the substance of the little tumours characteristic of that disease.

2. *Papulæ*, papules, or pimples, are little round solid elevations, from the size of a pin-head to that of a small split-pea, and which have a great tendency to be situated at the orifices of the follicles of the skin. They are generally *exudative* or *inflammatory*, the exudation having a special tendency to implicate the papillæ, while the epidermis, or at least its horny layer, is not implicated, but is stretched over the enlarged papillæ. The inflammation is very apt to select the rings of papillæ surrounding the orifices of hair-follicles, in which case each papule may be perforated in the centre by a hair. At the commencement of the formation of the papule the affected parts are simply hyperæmic; this is followed by a serous exudation, and later on by a new formation of cells. In the early, hyperæmic, the redness of the papules is greater than in the later, exudation stage, for then the exudation compresses the capillary bloodvessels and displaces the blood. We have a good illustration of inflammatory papules in the disease formerly described under the name of Lichen, but now usually recognised as a variety of Eczema, and called Eczema papulosum, or lichenoides.

But while papules are usually, they are not necessarily, inflammatory: they may be *glandular*, of which we have a familiar illustration in the affection termed Miliun, in which, owing to the obstruction of the orifices of the sebaceous follicles, the sebaceous matter accumulates in the glands,

and projects in the form of little pearly-looking nodules. Or they may be *epidermic*, as in the case of Lichen pilaris, in which epithelial *débris* accumulates in the hair-follicles, forming little elevations about the size of pin-heads, and through the centres of some of them a fine hair may be seen to protrude. Papules may be isolated, in which case the eruption is said to be discrete; or they may run together, forming patches of varying shape and size, in which case it may be difficult to make out the nature of the elementary lesion, except perhaps at the edges, and then the eruption is said to be confluent.

3. *Tubercula* are simply giant papules, varying in size from that of a pea to a marble. They vary, too, very much in structure. Thus, in Fibroma molluscum there is a circumscribed hypertrophy of the corium—especially of that part which forms the sac of the hair, and which pushes the more superficial parts before it; in Syphilis and Leprosy, on the other hand, there is a copious development of cells in the corium, which, according to Virchow, are connective-tissue corpuscles arrested in their growth, and which do not undergo further development, but are apt to degenerate and to terminate in ulceration or atrophy. In Epithelioma, on the other hand, it is the epidermis, and not the corium, which is specially involved.

4. *Phymata*, or tumours, are larger than tubercles, being at least the size of walnuts, and are exceedingly varied in structure: sometimes they are sessile, occasionally they are pedunculated; sometimes they are very prominent, sometimes deeply set in the substance of the skin, as in the case of the little tumours of Erythema nodosum.

5. *Pomphi*, or wheals. These are circumscribed elevations, most frequently oval or rounded in form, or assuming the shape of segments of circles (hence the name), and very evanescent, appearing and disappearing with remarkable rapidity; they are the result of an acute inflammatory œdema having its seat in the papillary layer of the corium. The exudation is thinner and more serous than in the case of most inflammatory lesions; hence the rash is very fleeting, the vessels recovering their tonicity and the exudation being absorbed. In children the inflammation is often less fleeting, the exudation being accompanied by the deposit of lymph, and the eruption being more or less papular (Lichen urticatus). When the wheal is typical the circumference is red and the centre pale, because the exudation in the central part compresses the bloodvessels, and drives the blood to the periphery. There are some who hold that spasm of the muscular fibres of the skin has a good deal to do with the appearance of pomphi; while Liveing seems to be of opinion that the condition is the result of a spasmodic contraction of the muscular coat of the vessels.

We have a familiar illustration of pomphi in the sting of the common nettle, and in the disease which takes its name from it, viz., Urticaria, or nettle-rash.

6. *Vesiculæ*—vesicles. These are little elevations above the level of the skin, about the size of, but not solid like papules, due to the accumulation of fluid on the surface of the corium, or between the horny and mucous layers of the epidermis. They have a great tendency to appear at the orifices of the follicles, with the central portions of which they may be connected, and thus they are not unfrequently depressed in their centres—in small-pox, for example: they are then said to be umbilicated. Vesicles vary a good deal in size: when they are about the size of millet-seeds they are said to be miliary, of which we have illustrations in the vesicular form of Eczema and in Sudamina; when they are of larger size they are said to be phlyctenular, as in Zona (Herpes zoster). Vesicles, like papules, may be discrete or confluent.

7. *Bullæ*, or blebs, are merely monster vesicles, varying in size from a split-pea to a small orange; but often, in an eruption which is quite appropriately called a bullous one, many of the bullæ may be so small that, were it not for the larger blebs associated with them, we should be justified in calling them vesicles. They may be tense or flaccid, and, like most vesicles, they contain serum, which, at first clear, may subsequently become opaque from admixture with epithelial cells, or the serum may be converted into pus: in some cases, especially in bad constitutions, the contents may be sanious (bloody). The best illustration of a bullous disease is Pemphigus, but it is not true, as some seem to suppose, that every bullous disease is Pemphigus. Thus, syphilis sometimes manifests itself in the shape of a bullous eruption, and Bullæ may

occur not as a primary but as a secondary lesion, as in typical cases of Erysipelas; in Eczema, too, when vesicles make their appearance where the skin is thick, as on the hands and feet, owing to the impediment to their rupture, they are apt to undermine the skin, run together, and form stray bullæ.

The appearances observed in the formation of a blister illustrate the changes resulting in the formation of vesicles and bullæ. In the first place, the vessels of the papillæ of the skin dilate; this is followed by a serous exudation, which passes up through the rete mucosum, and is arrested by the horny layer of the epidermis which forms the roof of the blister. In passing through the rete mucosum it pushes many of the cells before it; these adhering below to the papillary layer, especially between the papillæ, are drawn out into slender threads, which divide the blister into compartments. If the exudation is very copious, some of these trabeculæ may be torn across, and hang free, stalactiform, from its roof (Biesiadecki). The red areola seen round most vesicles and bullæ is due to the pressure of the fluid which they contain upon the vessels beneath, thus driving the blood to their periphery.

Sudamina, mentioned under the head of Vesicles, on the other hand, are filled with sweat, and are due to swelling of the epithelium near the orifices of the sweat-ducts, thus preventing its escape; they are situated between the horny layers of the epidermis.

8. *Pustulæ*—pustules, the result of a higher grade of inflammatory action than vesicles—contain pus, and are yellow and opaque. In the early stages the same changes are observed as in the case of vesicles. But the papillæ are studded with numbers of young cells, which extend to the deepest part of the mucous layer, so that, at the apices of the papillæ, no line of demarcation is to be seen between the true skin and the epidermis. These young cells approach the surface, and are set free as embryonic cells and pus-corpuscles, before there is time for their development into epithelial cells (Rindfleisch).

Pustules may be seated on the surface of the corium, or between the mucous and horny layers of the epidermis, as in cases of pustular Eczema; or the pus may be more deeply seated, and injure the corium, in which case scars are left behind; or they may occur around and in connexion with obstruction of the sebaceous follicles, as in cases of Acne.

Pustules vary in size like vesicles. The smallest, which are only slightly elevated, and generally perforated by hairs, are sometimes termed *Achores*: when they are larger they are rather more deeply seated, surrounded by a red areola, often confluent as in pustular Eczema, and are sometimes termed *Psudracia*: when they are as large as split-peas they are usually isolated, and are termed *Phlyzacia*. We have an illustration of them in the disease called Ecthyma.

II.—SECONDARY LESIONS OF THE SKIN.

As already observed, these are secondary to, and follow upon, one of the primary lesions. They are six in number, viz.:—

- | | |
|-------------------|----------------|
| 1. Excoriationes. | 4. Squamæ. |
| 2. Ulcera. | 5. Crustæ. |
| 3. Rimæ. | 6. Cicatrices. |

1. *Excoriationes*—abrasions. These are the result of the removal of the horny, and exposure of the mucous, layer of the epidermis, or of both, and exposure of the corium; and the abraded surface at first secretes a serous fluid, which dries into brownish crusts. Although some discolouration of the skin may remain for a time after the healing of excoriations, they leave no permanent mark, because the corium is not injured.

We have very good illustrations of this lesion in the raw surface which is left after the rupture of a bulla, or after the vesication of cantharides. The existence, seat, extent, and shape of excoriations are sometimes valuable aids to us in diagnosis (as, for example, in the case of Scabies and Phthieriasis corporis).

2. *Ulcera*—ulcers. This lesion differs from the last in that the corium, and often the subcutaneous cellular tissue too, is destroyed as well as the epidermis, in consequence of which a permanent cicatrix is left. It results usually from suppurative inflammation, sometimes from decay of the tissues the result of defective nutrition, and sometimes from infiltration of the true skin with new material, which replaces the normal tissues, and which subsequently de-

generates. The seat, size, and shape of ulcers, as well as the characters of their edges and base, sometimes help us in diagnosis. Thus, a syphilitic ulcer is apt to be rounded, with perpendicular edges as if cut out with a punch, and ash-grey base, while the surrounding skin has often a coppery tint.

3. *Rimæ*—fissures—result from loss of the normal elasticity of the skin, especially at parts which are the seat of inflammation, and which are in constant motion, as around joints. The most familiar illustration of them is to be met with in that condition with which most of us are too well acquainted—viz., chapped hands; it is often also frequently met with in cases of Eczema of the palms; and occasionally, in strumous subjects, double fissure of the upper lip is observed.

4. *Squamæ*—scales. These are composed sometimes of laminae of sebaceous matter mingled with epithelial cells (of which we have an example in the disease afterwards to be described under the name of Seborrhœa sicca), but generally of laminae of epithelial cells thrown off as the result of inflammation, the process being termed desquamation. Eczema, though commonly a moist, is sometimes a dry affection (*E. siccum*), and then the surface is frequently covered with scales (*E. squamosum*), which affords a good illustration of the latter variety of Squamæ. Every hyperæmia of the papillary layer of the skin interferes with and interrupts the nutrition of the epidermis: as a consequence, the epithelial cells are imperfectly formed and in excessive quantity, hence the desquamation; and the reason why, in diseases such as Psoriasis, the epithelial cells accumulate in thick scales instead of being cast off, is this. The more exuberant the production of cells, the more imperfect is their development: they constitute intermediate cells between the cylindrical elements of the mucous layer and the deeper cells of the horny layer. The normal hardening, "cornification," of the cells is replaced by simple desiccation of the soft protoplasm. The cells therefore adhere together, and thus retain their connexion with the surface for an indefinite time (Rindfleisch). The silvery appearance of the scales so commonly seen in cases of Psoriasis is said to be due to their containing air.

When the scales are very fine and mealy they are said to be *farinaceous*, as in *Tinea versicolor*; when they are larger and bran-like, *furfuraceous*, as in chronic Erythema (Pityriasis); when they are very large, they are said to be *membranaceous*, as in many cases of Pityriasis rubra.

5. *Crustæ*—crusts or scabs—are due to the desiccation of secretions of various kinds, mixed usually with epithelial cells and particles of dirt. When the secretion from which they result is serous, the crusts are greyish or brownish in colour; when purulent, yellow, or greenish (particularly in syphilitic cases); when bloody, black. But crusts are not necessarily the result of a morbid secretion; they may be due to fungus matter, of which we have a good illustration in the sulphur-yellow crusts of *Tinea favosa*. The thickness of the crusts depends on the thickness and rapidity of the secretion, and upon the degree of their adherence (they are most adherent, as a rule, on hairy parts, as they become entangled in the hair). But if it takes place very rapidly and is thin, there may be no crusts at all, as the secretion is apt to flow off the surface before there is time for its desiccation.

6. *Cicatrices*, or scars. In them there is a total absence of true skin, hair-follicles, and glands, which are replaced by a new formation of connective tissue, and covered with a layer of epithelium. They are always the result of destruction of the corium, and are usually preceded by ulceration, but they may occur without previous ulceration. Thus, we find them on the abdomen and breasts of women after pregnancy and lactation, as the result of the previous stretching of the skin; or in consequence of the absorption of a new formation in the substance of the skin, which has compressed and destroyed it, as in the non-ulcerating form of Lupus (*Lupus non-exedens*) and in Morphœa.

Cicatrices are white because they are sparingly supplied with bloodvessels, and because the mucous layer of the epidermis, which is the seat of the colouring matter of the skin, is destroyed. Hence, in Addison's disease, while the characteristic discolouration of the skin is rendered more intense by an abrasion, such as results from a fly-blisters, ulceration is followed by a cicatrix, which is quite white. Cicatrices are generally smooth and shining in appearance, but often their surface is very irregular, and is marked by

ridges or bands owing to the irregular formation of new tissue. They are often depressed, but when the connective tissue is developed in excessive quantity, they may be much elevated, as in spurious Cheloid. Owing to the contraction of the new tissue being bound down to the parts beneath, puckering of the skin in the vicinity is very apt to take place, and the deformity thus resulting may be even so great as to require an operation for its removal. Although Hebra at one time wrote a paper on the non-existence of characteristic cicatrices, I think it must be admitted that their situation, size, shape, and appearance may often help us to a diagnosis. Thus, when we find numerous little depressed cicatrices which are limited to the face and shoulders, we may be pretty sure that they are due to a bygone attack of Acne; and if we observe round white cicatrices with sharply cut edges and coppery areolæ, we may be tolerably certain that they result from syphilitic ulceration.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASES OF

SUSPENDED CEREBRAL FUNCTION OCCURRING AMONG THE PHENOMENA FOLLOWING EPILEPTIC FITS.

By JAMES RUSSELL, M.D., F.R.C.P.

THE first case, which also forms the principal subject of the present communication, offers an interesting combination of suspended cerebral functions. The patient was left by an epileptic fit with hemiparesis and hemi-anæsthesia on the left side, completely deprived of power to articulate, retaining full command of words (the logoplegia of Jaccoud), and combined with this condition was complete suspension of hearing and smell. No more precise information was attainable respecting vision and taste, than that they were not affected in the estimation of the patient. It may be well to observe that the limb paralysis was not apparent only, dependent upon the awkwardness resulting from loss of tactile sensibility; and farther, that the clear testimony of Mr. Welchman as well as of the patient and his friends eliminated the loss of speech from the condition of merely subjective speechlessness connected with impairment of the aural centres. It is necessary to make this remark, as Dr. Ferrier has stated that certain facts tend to show that unilateral lesion of the centres of hearing may produce this form of loss of speech.

I need not enlarge on the fact, first, I believe, clearly enunciated by Dr. Jackson, that he had not met with deafness as the result of cerebral lesion. "I have never seen complete deafness after apoplexy of any kind," he observes, using the word "apoplexy" in the wide sense of including sudden coma from many causes. To the same effect, Dr. Ferrier—"I cannot find any altogether satisfactory evidence of abolition of hearing in connexion with destructive lesion of the cortex." In the present case the deafness may not have had a cerebral origin, for it appeared that one ear had been previously incapacitated; and if the "crack in the head," heard by the patient at the moment when hearing was regained, were occasioned by sudden contraction of the intrinsic muscles of the ear, room is left for the supposition that some disturbance had taken place in the local auditory apparatus on the sound side.

With regard to the anosmia, it is a not infrequent attendant on epileptic attacks, and has been noticed by more than one author to be a frequent accompaniment of "aphasia," a conjunction of which an explanation was suggested by Dr. Ogle from the position of the external root of the olfactory nerve. This combination certainly exists in the present instance; but a curious deviation from the combination is presented in a former attack by the same patient, a former fit having been preceded by anosmia and deafness, and followed by a subjective odour of a foetid character.

It is worth noticing in passing, that an interesting illustration was afforded by the patient of Lockhart Clarke's observation on the connexion in the medulla oblongata

between the auditory and vagal nuclei and the long root of the fifth nerve. Whilst syringing the ear in order to employ the otoscope, Dr. Malet found that the slightest contact of the point of the syringe with the deep part of the lining membrane of the auditory passage caused cough and so much depression of the heart's action that the patient became ghastly pale, and was some time in recovering from the collapse into which he had been thrown.

Case 1.—An Epileptic Fit, followed by Slight Delirium, by Hemiparesis and Hemi-anæsthesia (Left), with Loss of Power of Articulation, and by Deafness and Anosmia—Former Fit preceded by Brief Deafness and Anosmia—Recovery after Nine Weeks.

Edward W., aged thirty-two. His father has long been subject to epileptic "faints." Patient has suffered from epileptic fits (bilateral, some with tongue-biting), since receiving a blow on the head when fourteen years of age. The fits have not been of frequent occurrence; but several years ago a fit left him with symptoms like those to be now described, lasting, however, only for fourteen days. My friend Mr. Welchman, of Lichfield, was called to him on the morning of August 9, and saw him just emerging from an epileptic fit; a second followed in a few hours, and a third (bilateral) in the afternoon. After emerging from a state of unconsciousness of two or three hours' duration, consequent on the third fit, he was found to be speechless and deaf, paretic and anæsthetic on the left side, with loss of smell; vision and taste, he asserts, were unaffected. The speechlessness depended on loss of articulating power: he told me, subsequently, that he had no difficulty in finding words; and he carried a slate, by help of which he conducted conversation freely and correctly. The paresis was considerable and decided; he had to be raised in bed, he could not stand, "he was a dead weight," said his wife. He remembers Mr. Welchman "trying" his arms with a needle, and recollects that whilst he felt the prick in the right arm, he could not in the left. The deafness, too, was distinctly to every kind of noise; he heard nothing. He afterwards told me that both deafness and anosmia habitually precede his fits for about ten minutes, and that "as he is coming round he has a bad smell in his nose like the closet." He adds that he has been permanently deaf with the right ear for a long time; the drum, he says, is burst. Our house-physician, Dr. Malet, examined the ear with the otoscope; he could not find any perforation, but the tympanic membrane was collapsed, and there was what looked like a small ulcer; the Eustachian tube was blocked. The patient was quite deaf with the right ear, perosseally and auditorially; with the left ear he heard the faint tick of a watch beyond the distance of twelve inches. This was after his recovery. And I may go on to say that at the same later date taste was natural, and smell also; yet the sense of smell was decidedly more feeble in the right nostril than in the left, as was sensation also, tested by a camel-hair brush and by fumes of ammonia; but both senses were clear on the weaker side. There was, too, a little difference in discriminating the points of the compasses in the face, to the disadvantage of the right side, but no difference in the tongue. I may just add that the patient is not left-handed. He does not suffer from tinnitus.

I saw him once only during the continuance of his ailment; that was on the thirty-fifth day, and I confirm all that is stated above. The use of the left side had returned, together with tactile sensation; both were regained rapidly three days after the seizure; but deafness and perfect suspension of articulation remained: he could not be induced to make the smallest effort at speaking, but wrote on his slate that he had often tried to talk (articulate) to himself, but entirely failed. On the following evening he was sitting at tea with his wife, his children having been taken out, and having created some surprise by not returning, when he suddenly said, speaking with great deliberation, "I wonder where those children are." Those around were "much shocked" by the unexpectedness of the occurrence. A quarter of an hour after, hearing came back "with something like a crack in his head," the first thing audible being the bell of a neighbouring tramcar.

His optic discs and the sounds of his heart are normal.

I have omitted to say that there was some delirium for two days after the fit.

Since his recovery he has had several fits, but with no important consequence.

I add a few notes of the following case, which appears to resemble the foregoing in respect of the deafness from which the patient suffered, and in the loss of speech. Unfortunately, however, no history was obtainable, nor was any information gained as to the normal state of the auditory apparatus. The case, however, possesses special interest in presenting an extreme example of that "reduction" to an automatic condition on which Dr. Hughlings-Jackson has repeatedly dwelt in connexion with epilepsy, especially as manifested by the post-epileptic phenomena. The process of reduction in this instance appears to have been carried to its extreme limits; all volitional life seems to have been suspended for a time, and perception perfectly occluded.

Case 2.—Extreme Automatism, with Imperception of all Modes of Sensation, and Loss of Articulating Power, in an Epileptic.

The case occurred many years ago, in the person of a boy aged sixteen, who was afterwards discovered to have suffered from occasional epileptic fits for two years, after one of which he lost his voice. He was brought by the police from a coffee-house. He was in a perfectly automatic condition. He sat in the surgery quite upright, with expressionless face, eyes opened and motionless, never varying his position in the slightest degree; supported by two men, he moved forward, just clearing the ground with his feet; placed in bed, he lay immovable, roused by no kind of stimulation. Though swallowing easily, winking his eyes, and occasionally rolling the globes, his pupils were dilated and oscillated when exposed to the light of a candle. In a few hours he became restless, and moved his arm as if fighting, raising it cautiously, and delivering a blow with considerable force. He had permitted his bladder to become fully distended. He was completely speechless. Twenty-four hours later he was perfectly insensitive to the most painful methods of stimulation, though he made a wry face at a senna mixture; he even allowed a piece of paper to rest on his cornea.

On the second day he intimated a desire to communicate in writing, and gave some account of himself, writing apparently by touch, for the operation went on equally well when a handkerchief was held in front of his eyes. He snapped at food as soon as it touched his lips, and devoured it with great voracity, eating pieces of paper as readily as food. On the evening of the second day, vision appeared to have returned, but neither hearing nor voice; and he carried on a brisk conversation by writing. He left the hospital in twelve days in just the same state, without having uttered a word, unless one of the patients were correct in stating that he heard him talk in his sleep, and without having shown any evidence of hearing the loudest noise. We afterwards heard that he had recovered; but that he subsequently died in a fit. He hawked newspapers about the streets; whence it may be inferred that he was not normally deaf.

(To be continued.)

ON A NEW CONVERTIBLE STETHOSCOPE.

By JOHN WARD COUSINS, M.D., F.R.C.S.,

Surgeon to the Royal Portsmouth Hospital; late Resident Surgeon to the City of London Hospital for Diseases of the Chest.

THE new stethoscope which I beg to introduce to the notice of the profession is a very simple contrivance, possessing the advantage of the double and single instruments in combination. The single stethoscope is now made in many forms and with a variety of materials; still there exists a general preference in favour of the old-fashioned wooden instrument. At the present time it is almost universally used by practitioners, and, no doubt, it serves in a vast majority of cases every purpose for a correct diagnosis.

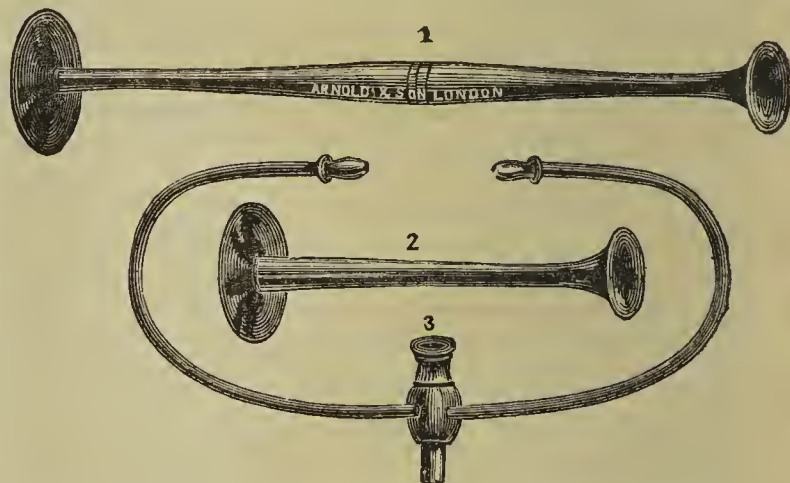
But the practical question arises, Why is the single instrument so generally employed instead of the double stethoscope? The preference, however, appears to me capable of very ready explanation. The double stethoscope, in the form in which it has hitherto been presented to the profession since its introduction by the late Dr. Leared, is a somewhat costly instrument, and certainly less portable than the ordinary wooden tube. Few medical men are inclined to carry two forms of the same instrument, especially when one has been used habitually and successfully for many years. Moreover, the introduction of the ear-

plugs of the bin-aural stethoscope into the auditory canal sometimes causes uneasiness and discomfort, and this is frequently observed when they are supported in position by an elastic band. The external meatus is of very variable capacity in different individuals, and this important fact is often overlooked.

It is essential that the plugs be perfectly adapted to the size of the canal, for when they are too large they cannot be retained, and when too small they occasion unpleasant sensations and friction-sounds in the ears. These inconveniences, however, are only temporary, and can be readily overcome by frequent practice with a well-selected instrument.

The double stethoscope presents many special advantages in the physical examination of the chest. Two ears are certainly better than one for discriminating sounds, just as two eyes are better than one for the purposes of vision. It is often important for the sake of accurate diagnosis to hear sounds emanating from a region of the chest with two ears simultaneously; and the value of the bin-aural stethoscope is very evident in distinguishing obscure and feeble sounds, and also in defining the precise seat of their greatest intensity. The double stethoscope is certainly the best instrument for the student.

It is a good plan to commence the study of auscultation with both ears, for this renders a practical acquaintance with the details more easy. The auditory power is very variable among different individuals, especially an acuteness of hearing for recognising low and feeble sounds, and experience proves that this power of ready discrimination is far more effectively cultivated with two ears than one. By the same means, too, the faculty can always be improved and sharpened; and with those who have long confined themselves to the use of the single instrument, and who have hitherto had no confidence in the bin-aural, it will be a great help to conduct an examination by the aid of both instruments alternately. A comparison between the auditory impressions



can be thus readily obtained, the old prejudice will soon be dissipated, and the great advantage of using both ears fully recognised. I have often heard my friends remark that "they do not like the double stethoscope," but this dislike has been generally associated with no real effort to learn its great practical value. It is admitted by all accomplished auscultators to possess many advantages, and I am bold enough to express the opinion that it will, before long, take the place now occupied by the old-fashioned tube.

The "convertible stethoscope" is a very simple arrangement for promoting the practical study of auscultation with both the single and double instruments. It consists of a flat ear-piece; a shaft nine inches in length, separable into two parts; and a flexible tube, with perforated wooden ear-plugs. These separate parts are all adapted to each other by the same simple joint, so that by fitting them together in different combinations four stethoscopes are produced.

First. An ordinary short stethoscope (Fig. 2), which is especially serviceable for the dorsal examination of patients confined to bed.

Second. A long single stethoscope adapted for sub-clavicular auscultation (Fig. 1). This form of instrument is often very useful in practice, for by its length the head is kept away from the face of the patient, and it also prevents uncomfortable stooping over the bed.

Third. A double stethoscope (Fig. 3). The shaft of the short single tube completes the instrument. The ear-plugs

are retained in position without pressure by adapting them to the size of the external auditory canal, and not by fixing them in the ears, as in the ordinary bin-aural, by means of an elastic band attached to the ear-tubes. This method removes at once some of the most common objections raised against the instrument. It prevents the uneasy sensation of pressure in the meatus, and also the friction-sounds which are often so perplexing to the student. The ear-plugs, moreover, are made in three sizes, to suit the varying capacity of the canal; and this is a little practical matter very necessary to remember in selecting an instrument. This will be found a very handy form of stethoscope. The chest-sounds can be examined with both ears, and then again with either ear alternately, by simply compressing the elastic tubes between the finger and thumb; in this way the single and double auditory impressions may be conveniently compared and studied.

Fourth. A double stethoscope with an auxiliary cranial conductor. The conductor is formed by placing the end of the long shaft between the teeth or on the forehead. In the latter method the ear-piece is fixed on the shaft for the purpose of increasing the area of the conducting surface. (Figs. A and B.)

FIG. A.



The value of this additional channel for the purposes of auscultation can be very readily estimated by experiment. I have employed it for many months, and it is my opinion that the sonorous continuity of the cranial bones and auditory nerves may be utilised as an auxiliary channel during many kinds of physical examination. It gives a remarkable

FIG. B.



clearness and distinctness to the auditory impressions; it assists in the definition of many feeble sounds; and it is particularly useful in the diagnosis of cardiac disease. The utilisation of this channel to increase the auditory impression is theoretically correct. It is a well-known fact that vibrations thus conveyed not only produce an effect independently of the tympanic apparatus, but also that they appear to become intensified by an obstruction to the transmission of sound-waves through the middle ear, caused either by aural disease or intentional plugging of the meatus.

Now, when the double stethoscope is used in conjunction with the auxiliary conductor, the ears are in the most favourable condition for the reception of sonorous impressions in this direction, as the canals are artificially plugged by the instrument itself. The activity of the tympanic apparatus, however, is not interrupted by this condition, for when vibrations are transmitted through both routes at the same moment, they react favourably upon each other, and the artificial obstruction of the canals, while increasing the direct cranial conduction, also intensifies the whole auditory impression. There may be considerable individual differences as to the susceptibility for feeble vibrations of the labyrinth excited directly through the skull, and these variations may be detected without any apparent aural defect; still, instances in which persons of normal hearing power find a difficulty in appreciating auxiliary conduction will be extremely rare, and will always be removable by a little trouble and practice.

The method of utilising the sonorous continuity of skull and the auditory nerves will prove a valuable aid to any who labour under unilateral tympanic disease. Sound transmitted through the conducting apparatus of the middle ear produces a greater effect upon the organ than when conveyed through any other medium; still, when the tympanic apparatus is injured, the vibrations of a solid body in contact with the cranium are heard distinctly louder on the injured side. This effect, which is constantly observed in chronic aural affections uncomplicated with disease of the nervous structures, is caused by the repeated reflections of the waves of sound in their outward passage from the tympanum towards the meatus. The auxiliary conductor will thus form a very serviceable addition to the double stethoscope for those auscultators who are unfortunately injured in the conducting apparatus of one ear. Under this condition the ordinary channel of sound is obstructed, but the vibrations are not lost, as they are utilised by direct transmission to the auditory nerves; and, in this way, they materially intensify the sensation received by the sound organ.

5. The convertible stethoscope is capable of another modification. It can be used as a differential stethoscope by substituting two elastic chest-tubes for the single chest-piece. The double tube, introduced by Dr. Scott Alison some years since, is now used by many experienced auscultators in the diagnosis of cardiac disease. By its aid, sounds proceeding from two distant parts can be conveniently distinguished and examined, and a comparison obtained between any two points on the surface of the chest. Sounds are thus differentiated and separated by the ear, their position defined, and their relation to each other determined both as regards character and time. It is a good plan to examine both points of the chest simultaneously, and then alternately, and also to obtain single and double impressions of the different sounds. For all the purposes of accurate definition and refined auscultation the differential stethoscope is a very valuable instrument, but its application requires careful study.

In conclusion, I beg to express the hope that the convertible stethoscope may prove of value to some of my professional brethren. It is a very portable instrument, of few separate pieces, although it admits of many combinations, and I trust it will help the hardly-pressed student of the present day to educate his ears, and obtain a practical knowledge of one of the most useful branches of our science. The instrument is made by Messrs. Arnold and Sons, of West Smithfield, and is supplied in a small case, so that it can be carried in the pocket very conveniently, and with more safety than the ordinary stethoscope.

THE LIVER IN DIABETES.—Dr. Lecorché terminates a paper read at the Académie de Médecine, "On Venous Congestion and Hepatic Cirrhosis in Diabetes," with these conclusions—1. Congestion of the liver is frequently, not to say constantly, met with during the course of diabetes. It depends upon the great functional activity of the organ, the cause of this affection. 2. Atrophic cirrhosis of the liver is observed too often in diabetes to be regarded as a mere coincidence; but, in our opinion, it is only indirectly connected with the congestion of this organ. It would seem to be especially due to the excessive quantities of liquids taken by these patients.—*Union Méd.*, December 29.

POISONING BY LEAD DICHROMATE.

By ROBERT CHARNLEY SMITH, M.D., B.Sc.

ON February, 12, 1881, Mrs. B., aged thirty, a weaver in a cotton-mill, came to me for advice and treatment. She had been unable to follow her work for the previous six weeks, and was suffering from great weakness, wandering pains in her limbs, and anæmia. Her gums showed well-marked signs of lead-poisoning. There was no albumen in her urine. She attributed her illness to the inhalation of a yellow dust that was given up from the yarn in the process of weaving an orange-coloured cloth. She had always enjoyed good health before being employed on this class of goods. She stated as a reason of her illness that it was the coloured dust (lead dichromate) which had made her ill; that her fellow-workers, when engaged at the same kind of work, sooner or later sickened, and that there were many others at home ill from the same cause.

Mary C., also a weaver at the same mill, applied for advice a few days after Mrs. B., and had, like her, been engaged as a weaver of orange yarn. The blue line was very distinct. Her breath was offensive; the skin and conjunctivæ were of a distinctly yellow colour. There was no bile or albumen in the urine, nor had she any tenderness over the liver. She suffered from tormina and wandering pains over the body, and was very costive. Under treatment the yellowness of the skin passed away, but the blue line remained long after other symptoms of lead-poisoning had disappeared.

Jane C., sister of the last-named, was visited by me at her own home on the same day. I found her also affected with lead-poisoning. She appeared at first sight to be suffering from an acute attack of jaundice: her skin and conjunctivæ were intensely yellow in colour. There was obstinate sickness, and purging of dark sap-green motions (probably stained with chromium oxide). The urine contained albumen and a trace of chromium, but no bile or lead. This patient recovered with difficulty—the staining of the tissues, sickness, and purging ceasing first,—but the blue line is still present.

The above are types of cases that were of constant occurrence about nine months ago in the practices of medical men in the neighbourhood of the mill in question. I had eight cases at once from the same mill under treatment for this peculiar form of lead-poisoning; another medical man had twenty; while a third had from thirty to forty similar cases in all under observation. One of the mill hands, under the care of a fourth medical man, dying from lead-poisoning, resulted in an inquest and post-mortem. This gentleman found distinct traces of lead in the liver. Public opinion having been drawn to the dangerous nature of the work, pressure was brought to bear on the employers, who have since then caused the yarn to be more carefully dyed and prepared before being woven. They have also insisted on the winders and weavers wearing a muslin respirator over the mouth and nose when at work, and the use of hooks to thread the shuttle, instead of sucking the weft through its eye with the mouth, under a penalty. By these precautions having been vigorously carried out, the operatives, though still weaving chromes, no longer suffer from lead-poisoning.

A microscopic examination of the yarn used shows minute crystals of the orange chrome adhering to the outside of the filaments, as well as others still more minute within the tubule and in the interspaces of its cortex. The crystals on the surface are easily washed away by trituration with water, and settle at the bottom of the washings, whence, if collected and fused with nitre and carbonate of soda, the characteristically yellow chromate of soda is produced. Ammonium sulphide blackens the crystals at once.

In the cases which I have observed, the yellowness of the skin was the first symptom to disappear, and the blue gums the last; and chromium was found in the urine, and probably in the fæces. I therefore conclude that after absorption the dichromate undergoes decomposition within the blood, the lead being fixed in the tissues; whilst the chromic acid combines most probably with soda—a compound which is intensely yellow, and stains the liquor sanguinis and skin for a time, and finally leaves the body by the liver and kidneys.

Ardwick.

REPORTS OF HOSPITAL PRACTICE

IN
MEDICINE AND SURGERY.

ROYAL FREE HOSPITAL.

A CASE OF RHEUMATIC FEVER—OLD AND RECENT
CARDIAC DISEASE—DEATH FROM PYÆMIA, CON-
SEQUENT ON ESCAPE OF SOFTENED ATHERO-
MATOUS DEPOSIT.

(Under the care of Dr. COCKLE.)

(Notes by R. BROOKES, House-Physician.)

PHILIP L., aged twenty-two, admitted into F ward, November 7, 1881, suffering from acute rheumatism.

The patient is a cigar-maker by trade; family history good; ten years ago he got wet through, was laid up eight weeks in bed with severe pains in his knees and shoulders, which pains changed their position to the wrists and ankles later on. The most acute pain was in the left side of the chest, worse on taking a deep breath or coughing; for this he was leeches and poulticed by the doctor who attended him. Has never been strong or well since, often having pains in joints, but what troubled him most was the shortness of breath and palpitation on taking any exercise. Six weeks before his admission he was obliged to take to his bed again with pains in his limbs.

On admittance the patient complained of pain in the præcordial region; slight pain also in the left knee and ankle, which are a little swollen. Temperature at 6 p.m., 102°6'; pulse 120; respiration 30. Profuse acid perspirations. Heart's action tumultuous; no friction-sound or increase in the præcordial dulness.

Dr. Cockle remarked that the first sound heard over the left ventricle was unusually abrupt. A murmur was audible over the base. Four old leech-bites, two inches to the left of sternum, two above and two below the third costal cartilage. Ordered sodæ salicyl. gr. xx. every three hours till 9 a.m. the next morning; took gr. cxx., when, the temperature having fallen to 98°, it was discontinued. Pulse 160; respirations 40. Temperature taken every three hours. Mild delirium.

November 8.—At 3 p.m. the temperature went up to 102°; pulse 140; respirations 40. Sodæ salicyl. gr. x. every three hours. Delirium very violent; and, after taking three doses of the medicine, it was again discontinued, as it seemed to cause the delirium, which continued to increase till 4 a.m., when the patient gradually sank into a comatose state (pulse 160; respirations 40; temperature 103°), and continued so till 7 a.m. on the 10th, when he died.

One hour before death his temperature suddenly went up to 106°6'. The heart-sounds remained unaltered throughout. While comatose there was no evidence of paralysis. Pupils equal, dilated, did not react to light. Respirations whiffling and shallow. The heart's action continued half a minute after respirations had ceased.

There was great difficulty in getting leave to make a post-mortem examination. Finally, permission was given to examine the chest only.

Autopsy, thirty hours after Death.—On removing the sternum and opening the pericardium, three ounces of clear straw-coloured fluid escaped. There were old and strong adhesions stretching from the pericardium to the heart, chiefly to the anterior aspect of the right ventricle and septum, and a few bands at the apex of the heart and right auricle. No evidence of recent inflammation. Weight, eight ounces. On opening the right ventricle and removing a small dark clot, the valves and endocardium generally appeared healthy. There was marked bulging of the septum into the cavity of the right ventricle. On opening the left ventricle, the walls were seen to be greatly hypertrophied, and the cavity dilated. No alteration visible in the muscular structure. The aortic valves were very much thickened, but without roughening or abrasion of the edges. At the base of the valves was a small atheromatous abscess about the size of a split pea, which had obviously burst; some gritty matter could be made to ooze from a rent in its wall. There was a small and similar open ulcer situated just at the base of the anterior aortic valve. The anterior cusp of the mitral valve was very much thickened, and a few

small warty growths were found at the margin. The aorta was speckled over with atheromatous patches for half an inch above the valves. Lungs: Marked hypostatic congestion; old pleuritic adhesions of left lung to pericardium. Small caseous and calcareous masses in both apices. Spleen soft and friable; structure apparently healthy; weighed ten ounces. Kidneys weighed six ounces each; some small white opaque spots were visible on the surface of both kidneys. The right had one large white patch a quarter of an inch in diameter, surrounded by a zone of congestion; the section showed it to be an infarct broken down into pus; three other well-marked infarcts in other parts of the same kidney. The spots on the surface were found to be abscesses. Two small abscesses existed in the pyramids. The left kidney contained only one infarct of large size; but there were a great many small abscesses on the surface and in the pyramids. Capsule peeled off easily. The urine contained in the bladder was drawn off and carefully examined, but without showing a trace of albumen. Liver slightly fatty, but not markedly so.

MANCHESTER ROYAL INFIRMARY.

CASES OF CEREBELLAR DISEASE.

(Under the care of Dr. DRESCHFELD.)

(Continued from page 735 of last volume.)

Case 3.—Headache—Staggering—Convulsions—Persistent Vomiting—Double Optic Neuritis—Gradual Abatement of all the Symptoms—Complete Recovery.

WILLIAM C., aged thirty-seven, married, was admitted into the Manchester Infirmary on October 28, 1879. The following is a brief outline of the case from the notes of Mr. J. K. Milne, L.R.C.P., then Clinical Clerk.

Previous History.—Patient had always enjoyed good health up to the last two years. At the age of seventeen he enlisted and was in the Army ten years, three years of which he spent in India. During the last ten years he has worked in a foundry. He denies having ever had syphilis. He has been married twelve years, and has had two children, both living. His wife has never had any miscarriage. Two years ago patient began to complain of pain in the head, and dizziness, which, however, only troubled him occasionally. For the last three months the dizziness became much worse. About a month ago he began to stagger in his walk, which increased so rapidly that he is now unable to walk at all without assistance. He has had five epileptic fits, the last one about a fortnight before admission. His eyesight has become much dimmer. For the last ten days he has vomited after meals; previous to this had no vomiting.

Present Condition.—Patient lies in bed; is of middle stature, muscular, fairly well nourished; pale, and has a sad expression of countenance. The skin is moist, smooth; shows neither rash nor cicatrices. On the left side of thorax, at the junction of second costal cartilage with the rib, there is a small, hard, smooth, painless swelling, directly continuous with the costal cartilage, which has existed for twenty years or more, and is most likely an enchondrosis. The patient complains of intense occipital and frontal headache, coming on in paroxysms, worse in the day than at night, and of giddiness when he raises himself or attempts to sit up. His intelligence is perfect; there is no delirium; sleep, disturbed by the headache, is otherwise good. The head shows no abnormal configuration; there is no affection of any of the cerebral nerves or special-sense organs, except the optic nerve. Ophthalmoscopic examination shows marked optic neuritis in both eyes; the outlines of the papilla are indistinct, the disc is swollen, the veins very much engorged and tortuous; the pupils are equal, slightly dilated, and react sluggishly. The vision is bad. Patient can move both the upper and lower extremities very well when in bed; their muscular power is not impaired. There is neither anaesthesia, analgesia, nor atrophy of any of the limbs; the tendon reflexes are normal. The patient can, however, neither stand nor walk without support, owing to giddiness and staggering. When he attempts to walk he staggers more to the left than the right side. He has perfect control over the bladder and rectum. The tongue is clean and moist; there is no nausea, but patient vomits everything he takes; the bowels are regular. The examination of chest and abdo-

minal organs shows nothing abnormal; pulse 48, strong. The urine has a specific gravity of 1020, is acid, and contains neither albumen nor sugar. The temperature is subnormal (97.2°).

Diagnosis.—Cerebellar tumour affecting the left hemisphere and vermiform process.

Treatment.—Pot. bromid. ʒvj., acid. hydrocyan. dil. ℥xxiv., inf. quassiae ad ʒxij.; ʒj. t. d. s. Pil. argent. nitr. gr. ʒ; unam bis in die. Ice-bag to head. Diet: Milk and beef-tea.

Progress.—For a fortnight the symptoms remained much the same as on admission; the patient vomited everything he took, including the medicine; his pulse never rose beyond 50, his temperature remained subnormal; the headache was very intense, and was only relieved by the ice, which was constantly applied during day and night.

On November 14 it is noticed that the patient has lost much flesh since his admission, and that he feels and looks very prostrate. The vomiting still continued. He had several convulsions on the 11th, 13th, and 14th. The optic neuritis is still very much marked. Owing to the continuous vomiting, the patient has not taken any medicine since the 6th. The ice-bags are persistently applied, and give him relief.

Soon after this the patient began to improve: the vomiting ceased, the appetite improved, and the headache diminished.

On December 8 the patient had two general convulsions, which, however, did not impede the gradual improvement.

On the 20th the following note was entered in the case-book:—"Patient can walk now without support, but staggers still slightly to the left; he can stand and walk with his eyes shut; he has no headache; neither the vomiting nor the convulsions have returned; he has gained flesh; pulse 76; temperature 98°; respirations 16; bowels regular; urine normal. The optic neuritis is found on ophthalmoscopic examination to be receding. The disc is still hazy, and the veins enlarged, but the swelling is less marked, and the centre of the papilla is paler and clearer. The treatment, which consisted for the last five or six weeks simply in the application of ice-bags, has been entirely stopped."

On January 3, 1880, the patient was sent to the Convalescent Hospital in Cheadle. He feels quite well, but still staggers a little when walking. The patient remained six weeks in Cheadle, and was then discharged quite well. He had then neither staggering, headache, nor vomiting, his vision had much improved, and the optic discs were quite normal. The ophthalmoscopic appearances both during the patient's stay in the hospital and after his return from Cheadle were confirmed by Dr. D. Little, the Ophthalmic Surgeon to the Infirmary.

With the commencement of April the patient began to follow his work, and remained well till October, 1880; he then again complained of dizziness and occasional vomiting, and was an out-patient for about four weeks, taking iodide and bromide of potassium. No optic neuritis could then be observed. The symptoms soon subsided, and the patient has remained perfectly well ever since, as I found on making a recent inquiry.

Remarks.—The symptoms in this case were so well marked and so very characteristic that I do not think that any other diagnosis than that of cerebellar tumour could be arrived at; and, in spite of the patient's recovery, I believe the diagnosis to have been correct, and look upon the case as one of cerebellar new growth which had undergone a spontaneous cure, considering the length of time which has now elapsed since the last symptoms were noticed. Owing to the persistent vomiting, no other treatment than the constant application of ice to the head had been attempted. How far this treatment had anything to do with the improvement, it is impossible to say. It will be noticed that there was no history of syphilis, and that no iodide of potassium was given during the time the patient stayed in the hospital; and I do not, therefore, believe the tumour to have been of syphilitic nature.

(To be continued.)

SUPERANNUATION ALLOWANCE.—The Guardians of the Chertsey Union have, with the consent of the Local Government Board, just granted a pension of £50 per annum to Mr. Charles Mott, on his retirement from the office of Medical Officer for the Walton District.

(Free by post.)

Cheques or Post-office Orders should be made payable to Mr.
JAMES LUCAS, 11, New Burlington-street, W.

THE MEDICAL TIMES AND GAZETTE is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.

Medical Times and Gazette.

SATURDAY, JANUARY 7, 1882.

PROVIDENT DISPENSARIES.

THERE has for a considerable time been an agitation for a reform of the out-patient department of our hospitals, and lately a Metropolitan Association has been established for reforming that department pretty nearly off the face of the earth, and for promoting in its stead the establishment of Provident Dispensaries. It is contended that many persons go to hospitals for advice who could afford to pay medical men, and that therefore medical men suffer; and that this, and all the other alleged evils, of the hospital out-patient department, would be remedied by Provident Dispensaries. We have frequently pointed out that the abuses of the out-patient system at the hospitals have been largely exaggerated, and have expressed grave doubts whether, supposing even that they exist to any great degree, Provident Dispensaries would prove to be the efficient and satisfactory remedy that the promoters of them believe. A fortnight ago we spoke in some detail of the probable and possible evils and defects of the Provident Dispensary system, though we did not nearly exhaust the subject; and, indeed, anything like full statements of facts concerning the working of these dispensaries have not been available. We have, however, now before us a valuable report from the Manchester Medico-Ethical Association, which gives some of the information that has been so long wanted. On May 20, 1881, the Association appointed a Sub-committee, "to inquire into the present working of the Provident Dispensaries in Manchester and Salford, and to report to the Committee at as early a date as possible"; and the Report of the Sub-committee was approved and adopted by the Committee of the Association in November last.

The Report deals with four questions—1. The class of patients admitted; 2. The influence of newly established provident dispensaries on the practice of medical men in the neighbourhood; 3. The remuneration received by the medical officers of the provident dispensaries for their services; 4. General conclusions.

As to the class of patients admitted. According to the rules of the Provident Dispensaries Association, "the members shall be artisans and others in the receipt of weekly wages, whose average earnings do not exceed 30s., but the earnings of any children in the family above fourteen years of age shall not be included in this sum. Every ordinary member has to pay one penny per week. The Committee may admit any other applicant for membership if they think the case a suitable one." The Sub-committee admit, of course, that such a rule cannot anyhow be a hard-and-fast one, and that in practice a certain amount of latitude must be allowed; but they state that the evidence received by them unmistakably points to the conclusion that in some dispensaries persons are freely admitted as members who have no claim whatever to a participation in a provident dispensary. Among others reported as members there are shopkeepers, tradesmen, engine-drivers, pawnbrokers, and licensed victuallers. As illustrations, the Sub-committee mention:—"A butcher, doing an excellent trade; a draper, with a large established business; a pawnbroker, apparently doing well; a beerhouse-keeper, rent £25, good trade; and a man who keeps a coal yard, and owns house-property." Further, they had evidence that the following among others had been canvassed by an official to join:—"A bootmaker, paying £46 per annum rent; a man who has two large shops; a man who lives in a quarterly house, and earns £5 per week." A medical officer to a provident dispensary wrote:—"The class of patients admitted to the — Provident Dispensary consists of the best specimens of the honest and industrious working-classes, clerks, and tradesmen, the latter in many cases paying rents of from £30 to £40 a year. . . . I never knew but one family refused admission to the dispensary during a period of five years and a half." And similar evidence was given by others. The next statement in the Report explains how this comes about. "The collector, whose duty it is to inquire into the means of the applicants, is also the canvasser, and is paid according to the number he can induce to join the dispensary." In some dispensaries "no check whatever seems to be placed upon the doings of this official; it is clearly to his interest to enrol the more well-to-do, who can pay more readily than the poor, and, consequently, he too often passes by the courts and side streets, and confines his canvassing to the well-to-do shopkeepers and publicans in the main thoroughfares." Not the very worst that has been alleged against the hospital out-patient department has ever come near this. In some dispensaries, the Sub-committee say, it appears that the income of each member is entered in a book, subjected to the inspection of the Committee, and "sometimes, at the instigation of the medical officers, unsuitable members are eliminated." In one dispensary, no case of improper admission had been reported. But in another, one of the most recently established dispensaries, very flagrant cases of abuse were reported: there was no committee; and almost all classes had been canvassed and allowed to join. Then it further appears that large numbers of members join the dispensaries temporarily only. One dispensary, "with 1900 members on its books at the commencement of the year, and 2100 at the close, admitted 910 new members, and lost 653—nearly one-third." This is chiefly due to the members joining when sick, and leaving as soon as they have recovered from their illness, finding it cheaper to pay the 5s. entrance-fee and 1d. a week afterwards, than to call in the services of a medical man in the ordinary way. This, again, is an utter abuse of the provident dispensary system.

Secondly, as to the influence of these dispensaries on the practice of medical men in the neighbourhood, the Report states that "the evidence received is clear and decisive as to their injurious influence." One medical man reported

that "every patient he had in the district had been canvassed to join the dispensary, some of them over and over again." Another wrote, "In my own case the opening of the — Provident Dispensary reduced my practice to one-half, taking away shopkeepers and beerhouse-keepers, and leaving me all the very poor." A third, that "the effect upon his practice had been ruinous; his practice in the district of the Dispensary had been reduced to *nil*, and he had had to remove to another district.

Thirdly, as to the remuneration received by the medical officers, it is shown to be as unsatisfactory as possible. At one dispensary there were about 2000 paying members on the books, and the two medical officers had paid 6640 visits, and saw 8510 patients at the dispensary. For these attendances 16,100 prescriptions were prepared; thus on an average each member had medicine prepared for him eight times a year. For all this the two officers divided £250 between them, amounting to 3 $\frac{1}{2}$ d. for each prescription! At another dispensary the figures were almost exactly the same as regards rate of remuneration.

In conclusion, the Sub-committee observe that the evidence laid before them conclusively proves that at the present time the majority of the dispensaries are being seriously abused. With the exception of one or two dispensaries, the rule as to the admission of members is repeatedly broken, and in others the spirit of the original scheme is disregarded in not seeking the co-operation of the practitioners in the neighbourhood who wish to join. In the case of the last provident dispensary started, all rules and regulations had been set at naught; and, as had been the case in other provident dispensaries, objectionable circulars, with the name and private address of the medical man attached, had been distributed in objectionable ways—as by supplying them to tradesmen for wrapping their goods in; and then the advertising was followed by an indiscriminate canvass of publicans, shopkeepers, and tradesmen. The Sub-committee may well say that it is difficult to comprehend how such abuses can take place, seeing that these dispensaries are under the patronage and control of the Manchester and Salford District Provident Society, which appeals to the public for funds to supply medical aid to the "families of working-men who, not able to pay ordinary medical fees, are left either to neglect, plunged into debt, or reduced to beg for charitable aid."

There is evidently need here for reform with a strong hand. It seems impossible to believe that the benevolent people of Manchester, who have helped to establish and support these dispensaries by their honorary subscriptions and donations, can contemplate the state of things thus made public, without great dissatisfaction, or without their insisting upon a thorough reform of abuses which make "Provident Dispensaries" a scandal instead of a benefit. But we confess that it is somewhat difficult to hope for much good result from the *exposé* made by the Report we have been noticing, when we learn, from the concluding paragraphs of it, that in 1875 a Sub-committee, appointed for the same purposes as the Sub-committee of 1881, reported the existence of evils and abuses identical with those found to exist now. It behoves the profession at large, and all persons interested in the welfare of the Provident Dispensaries system, to seriously consider and take to heart the Report of the Manchester Medico-Ethical Association.

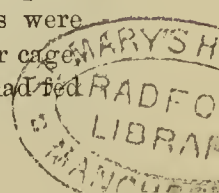
DR. W. MYERS ON FILARIA SANGUINIS HOMINIS

THE latest number of the *Medical Reports of the Imperial Maritime Customs of China* contains some very interesting observations on *Filaria sanguinis hominis* in South Formosa, by Dr. Wykeham Myers, Surgeon to the "David Manson"

Hospital at Takow. Dr. Myers had been requested by Dr. Patrick Manson to examine carefully cases of *Filaria sanguinis hominis* that might come under his notice, in order to test the accuracy of Dr. Manson's discoveries and observations.

At the outset of his investigations, Dr. Myers was somewhat crippled by the difficulty of getting an infected subject. After repeated experiments, he succeeded in finding only three filariated persons. From the number of patients he fruitlessly examined at various hours in the day and night, and from the almost total absence of those diseases which Dr. P. Manson has proved to be dependent upon parasitic obstruction, Dr. Myers concludes that this state of blood-infection is not common to, or favoured by, residence in Formosa. Of elephantiasis he has seen only one case; and as the patient informed him that she had contracted the disease years ago in Amoy, and had been to that hospital before for treatment, he assumes that hers is one of the cases recorded by his predecessor, the late Dr. David Manson. Among 15,000 patients treated in the Native Hospital since 1871, only two cases of elephantiasis—and he believes the case mentioned above to have been one of them—had been noted, and not one of lymph-scrotum. He hence concludes that the *Filaria sanguinis hominis* does not exist in the blood of the regular and permanent natives of Formosa. On the mainland those diseases abound, but in Formosa instances of their occurrence are found only among those immigrants or recent colonists from the mainland, with which they have kept up their connexion by periodically revisiting.

Dr. Myers describes in detail his attempts to filariate monkeys; but, before doing so, remarks that all now take for granted that the mosquito plays an essential part in completing the cycle of genesis, and that if this medium be absent or incapable, the further propagation of the parasite is suspended. Dr. P. Manson found that the mosquitoes which nurtured the *Filaria sanguinis hominis*, when made to feed on an infected dog, digested the embryos they thus obtained, showing that if the mosquito be the intermediary host in the case of dogs, it cannot be the same species as that which acts as go-between in man. He next describes the nature of his experiments on monkeys. A native boatman, aged twenty-eight, born in Amoy, where he had lived to the age of twenty-one, and who since the age of fourteen or sixteen years had been subject to attacks of "fever and ague," was under more or less supervision for six or eight months. When eighteen or twenty he had first noticed swellings in the groin, which increased but little, and latterly had rather decreased. There was nothing abnormal about his scrotum or legs, and altogether he was a fairly healthy and well-developed man, and able to endure a considerable amount of bodily exertion. He willingly submitted to the experiments, and even took an interest in examining filariæ through the microscope. As to his attacks of fever, Dr. Myers remarks that they were probably seizures of the characteristic "lymphatic" fever, and differed from the malarial disease which they resembled in the absence of marked periodicity, there being generally a long interval between the attacks. Five monkeys were the other, but less willing and appreciative, coadjutors in Dr. Myers' investigations. The experiments were conducted as follows:—To-Ah, the boatman, was placed to sleep night after night under a large gauze-covered cage ("mosquito house"), into which, each night, were put numbers of mosquitoes, freshly collected from all parts of the settlement. In the cage was a breeding trough, also covered with mosquito netting, into which Dr. Myers from time to time put mosquito larvæ got from different places. As the mosquitoes were matured they were allowed to escape into the larger cage, care being taken, however, that none of those which had fed



could return and deposit their ova in the breeding cage. For these latter a trough was suspended in the darkest part of the house, and filled with water as required; and as soon as this water became sufficiently covered with ova it was given to the monkeys to drink, being the only fluid supplied to them except that contained in the bananas on which they fed. Dr. Myers met here, however, with an unexpected difficulty. The monkeys exhibited the very strongest objection to drinking water so evidently impure, and in which there were objects in motion. Besides the ova there were also numerous mosquito larvæ darting about in the water, and these the monkeys would try to remove, and not succeeding in this, refused to drink. In the case of one monkey, a male, ten days elapsed before any water was spontaneously drunk. Driven desperate by thirst, after making many attempts to brush away the ova and catch the larvæ, he suddenly dived in his head, took two or three deep draughts, and then sprang away screaming and chattering. Daily drenching with the water had at last to be resorted to. Dr. Myers remarks that the interval which elapsed before the animal could bring himself to drink the water showed how strong must have been his instinctive objection to other than pure fluid.

For more than six weeks the water in which the mosquitoes were daily depositing their eggs was administered to the monkeys. After the first week, Dr. Myers examined the blood of all the monkeys each day, both night and morning, but without result. In five weeks one of the subjects got fever with cough, and died. No signs of filariæ or anything that could be attributed to them were found. About seven weeks from the commencement of the experiments another monkey died from pneumonia, and, as regards filariæ, the post-mortem was barren of results. About this time the man had ceased to sleep in Dr. Myers' house, but for a few days longer, until the mosquitoes had disappeared from the cage, and ova had ceased being deposited, the water was administered to the monkeys. Up to the end of the fourth month the daily examination of the blood of the monkeys was continued, but as fruitlessly as before. About this time another monkey died. Her body Dr. Myers put in spirits and sent to Dr. Manson, who found nothing but extensive tubercular disease. The surviving monkey in November, 1880, was well and lively, and there were no traces of filariæ in his blood.

Dr. Myers does not attach any importance to the fact of four of the monkeys having died from pulmonary and tubercular diseases, to which captive monkeys are very liable, he says, in Formosa, as they are elsewhere; and to which it seems to us not improbable that the daily drenchings may have contributed.

During the whole time the man slept in his house, Dr. Myers daily caught a certain number of gorged mosquitoes, which he kept alive in bottles duly labelled. On examining those which had fed on the previous night he readily found several lively embryos; but at no later date could he find anything else than semi-digested remains, which at a subsequent stage, however, were not to be seen. He speaks with certainty as to the results of these observations, and has no doubt that in all the cases which came under his notice the mosquito was an inhospitable host, digesting when it should have nurtured. The mosquitoes had been collected promiscuously from all parts of the island, and he is inclined to think that if the species which entertains the man-infecting filaria were common, he should have got it; and that, if his suspicions be correct, it will be readily intelligible why no cases of elephantiasis or lymph-scrotum are referred to Formosa, and also why the only filariated individuals he could get hold of were those hailing direct from Amoy. He purposes, if practicable, getting supplies of the desired mosquito over from the mainland, and will then continue

his experiments. He is at present engaged in closely examining all the different species he can find, with a view to future description and classification.

On the second subject of his investigations—viz., "To note the periods of appearance and disappearance of the embryos from the blood of infected persons, with the view of corroborating or disproving Dr. P. Manson's recent discoveries as to the periodicity displayed by the parasites in their appearance"—Dr. Myers gives most interesting results. Besides To-Ah, whose condition has been already described, and who was the only subject upon whom Dr. Myers was able to make consecutive observations, there were two others on whom from time to time he was able to make occasional investigations—one suffered from ague, the second from a callous ulcer of the leg. No enlarged glands could be detected, nor any other ailment which might be attributed to filarial infection.

The mode of drawing the blood was by slightly congesting one or other of the fingers with a tape and then pricking the skin with a sharp needle. At least two slides were charged at each observation. In a subsequent section of his paper, Dr. Myers goes more fully into description of the method of drawing the blood. He says that it is of great importance that every precaution be taken to avoid injuring the embryos. The blood drawn should flow or spring freely from the puncture without any extraneous aid save the constricting band. If serum be separated in the drop before it becomes large enough for transfer to the slide, the embryos are invariably rendered languid in proportion to the distance to which they are removed from the corpuscles. On contact with serum, the embryos are decidedly debilitated, or become rapidly so on arrival therein.

The results of Dr. Myers' observations amply bear out Dr. P. Manson's statements. The embryos appeared regularly between 6 and 8 p.m.—generally a little after 6. In fourteen observations made at 6 p.m. there were ten blank searches, and four in which embryos were present. By 6.45 p.m. they had begun to appear regularly, although still in small numbers, and it was not until 7.15 p.m. that they had become numerous. By midnight they seemed to have attained their maximum, and from that hour gradual decrease set in. In the morning they retired between the hours of six and eight, which gives them a period of activity for twelve hours, corresponding exactly with the period during which mosquitoes are in active search for food. Only on three occasions did he see any embryos between 8.30 or 9 a.m. and 12 noon, although he diligently searched for them. On no occasion at noon was more than one embryo present. The temperature of the mouth was taken before drawing the blood, so as to obviate any risk of its being affected by the operation. At the hour when the embryos return the temperature rises slightly—more than can perhaps be attributed to ordinary evening elevation. On the whole he concludes that although there is no very marked relation between the temperature and the number or activity of the embryos some influence seems shadowed forth.

The third object of Dr. Myers' investigations was to account, if possible, for the disappearance of the embryos at certain hours, and to discover whether this was final as regarded the swarm, or whether they lay dormant and adherent during certain periods in the lungs or other organs of the body.

Dr. P. Manson inclined to the idea that during the period of their disappearance the embryos congregate in some organ (possibly the lungs), and there remain until the time arrives for their wanderings and withdrawal by mosquitoes. Although hesitating to offer opposition to the views of so able and painstaking an observer as Dr. Manson, Dr. Myers suggests the possibility of diurnal solution as the

end of such of the embryos as do not come within mosquito range. He gives details of several experiments and observations, but modestly observes that, knowing how inadequate they are both in number and nature, he merely offers them as first steps in that research, for which ample opportunities must be afforded. As the cause of the disappearance of the embryos, he merely offers the surmise that solution may be the final process by which removal is effected.

As regards the action of various substances on the filariæ, such as arsenious acid, salicylic acid, santonine, and quinine, the first killed in about thirty-eight minutes. It was astonishing, however, what a comparatively large quantity of the drug it took to bring about this result. Salicylic acid required eight hours to produce the same effect. The action of santonine was still slower, and less marked. Quinine (the bisulphate, used on account of its solubility) had a rapid effect in reducing the embryos to the last stages of weakness—indeed, its action was apparently more speedy in this respect than arsenic,—but he was not able to be sure of the death of an embryo until five or six hours had elapsed.

Dr. Myers' early observations were confirmed by Dr. John Dudley, R.N., at that time of H.B.M.S. *Mosquito*, and his latest were made with the assistance of Dr. McKinlay, R.N., of the same ship, and of Dr. Peter Anderson, of the English Presbyterian Mission. We shall publish shortly also a paper on the *Filaria sanguinis hominis*, read by Dr. Spencer Cobbold at the last meeting of the Epidemiological Society.

THE WEEK.

TOPICS OF THE DAY.

A RECENT decision of the magistrate at the Lambeth Police-court shows the mischief that may, or rather must, arise when heads of Government Departments permit themselves to recommend any tampering with the law of the land. A Mr. Walter Hooker, of Gloucester-road, Camberwell, recently appeared to an adjourned summons taken out by Inspector Stevens on behalf of the Guardians of Camberwell, for neglecting to have his child vaccinated within three months of the birth. Upon the former hearing the defendant laid his case before the Court. He did not dispute the fact that the child had not been vaccinated, but, as he had before done, expressed his strong feeling against vaccination generally; and said it was on those grounds, and not in defiance of the law, that he had objected to have the child vaccinated. He produced the various Orders in Council upon the matter, and further contended that the letter from the Local Government Board to the Guardians of Evesham Union, in 1875, pointed out that repeated prosecutions should not be taken against persons who had been more than once fined for refusing to have their children vaccinated. Mr. Ellison announced that he could not set his face against this letter to the Guardians of Evesham; it would be better, in a case like the one before him, that the Guardians should hold their hand for a time, and refer the question to the Local Government Board. Mr. Stevens urged that such a course as that would perhaps be better after the disposal of this case. After a prolonged argument, Mr. Ellison said he should adjourn the summons for six weeks, and by that time some further information might arrive from the Local Government Board upon the subject. He considered the defendant was perfectly justified in availing himself of the Circular of that Board with regard to the case; and he should further adjourn the hearing to give the Guardians an opportunity of communicating with the Local Government Board. The Local Government Board will certainly not give any opinion that can be of any real use, if it can avoid doing so. But

the opinions of the present President on the subject of compulsory vaccination are, unhappily, well known.

One, and certainly not the least, use of a coroner's court is to expose those sanitary defects which, in spite of inspectors, are only brought to light—with any certainty of amelioration—when some lives have already been lost. Thus, a shocking case was recently inquired into by Dr. Danford Thomas in St. Pancras, where a child ten months old had died from diphtheria. The mother, the wife of an ostler, deposed that she had five children, two of whom were now lying dead. She had taken the deceased to University Hospital for treatment. Several of the children in the neighbourhood were "down with the fever," but she did not know that any of them were suffering from diphtheria. The Coroner read a letter, which stated that the house in which the deceased died was a scandal to the neighbourhood, and totally unfit for human habitation. A medical man deposed that he was called to see the deceased, and found her dead from diphtheria. There was another child of the same parents also lying dead from this disease. Two children had just died from scarlet fever in the house immediately opposite that in which the deceased died, and a third child had also died there. Witness considered that the drainage was defective, and he had asked a friend, an engineer, to give an opinion on Little Edward-street, the locality in question, with the result of being confirmed in his opinion as to its unsanitary state. The whole street was in a bad condition, and had been so for a very long time. When the first child died, he recommended the mother to send the other to hospital, but she refused. A third child was now in a very dangerous condition from whooping-cough. The foreman of the jury said that the condition of Little Edward-street was such that they must not overlook it in recording their verdict; and this publicity will, it is to be hoped, bring about the desired reformation.

The general annual Return of the British Army for the year 1880, which has just been published, certainly cannot be regarded as satisfactory from a non-military point of view. From it we gather that the number of recruits between 18 and 19 years of age who joined during the year was 6611; between 19 and 20, 5510; between 20 and 21, 3667. The total number of recruits obtained during 1880 was 25,535, so that three-fifths of them were scarcely better than boys; indeed, as regards those stated to be between 18 and 19 years of age, it is admitted that the 6611 should be reduced by at least one-half, since it is notorious that many youths, with the connivance of the recruiting sergeant, falsely represent themselves as being over 18. Regarding the height of the men, the numbers were:—Under 5 ft. 5 in., 9360; 5 ft. 6 in., 24,756; 5 ft. 7 in., 37,933; 5 ft. 8 in., 37,389; 5 ft. 9 in., 29,806. The statement of chest measurements shows that there were 3182 under 33 in., 5819 under 34 in., 20,282 under 35 in., 32,599 under 36 in., and 40,348 under 37 in. The average British soldier of the present day may, therefore, be described as about 23 years of age, about 5 ft. 7 in. in height, and about 37 in. round the chest—decidedly inferior in point of maturity to the class of men who fought the Peninsular battles and Waterloo. Although without any bearing on the composition of our own Army, it is somewhat singular to notice that a serious falling off was observed in the physical quality of the youths drawn during the past year for military service in the manufacturing towns of Germany: the main causes of rejection were constitutional debility and physical deformities, and a large number of these pallid, feeble lads, moreover, were found to consist of married men, not infrequently fathers of one and two children born in wedlock. It is hinted that the German War Office contem

plates the introduction of a law prohibiting marriage to youths liable to army service until they shall have completed such service or attained the age of twenty-three years.

Dr. Tripe, Medical Officer of Health for the Hackney District, has submitted to his Board a special report, showing that during the recent floods not fewer than 395 houses at Clapton Park, Lea Bridge, and Hackney Wick, and sixty-one house-yards at Hackney Wick, were flooded. In some cases the water had entered the houses above the window-sills. He suggested that something effectual should, if possible, be done to prevent a recurrence of the flood, on sanitary grounds alone. The flood could not have been caused by the rainfall, which was by no means exceptional, having been less than one inch between nine o'clock on Saturday, the 17th, and Monday evening, the 19th ult. The General Purposes Committee also presented a special report, in which it was stated that the Surveyor had shown that a very considerable portion of the water could be made to flow away along the course of the old river, by the construction of culverts beneath the Hackney Cut, and thus the flooding of the low-lying lands much decreased, if not entirely prevented. The Hackney District Board of Works, upon these reports, instructed their Clerk to communicate with the responsible authorities, viz., the River Lea Conservancy Board, the East London Waterworks Company, and the Metropolitan Board of Works, urging each to devise and carry out some measure of relief.

The Hackney Guardians having appealed to the Local Government Board to bring pressure to bear on the Metropolitan Asylums Board to induce them to furnish the Guardians with details of the expenditure incurred in connexion with the hospital-ships *Atlas* and *Endymion*, the London-fields ambulance station, and the removal of small-pox patients, the Local Government Board have replied:—"The Board has no authority to direct the Managers to supply the Guardians with the information which they are desirous of obtaining. The Guardians are reminded that they have a representative on the Board of Management, who would doubtless be able to obtain the particulars required." The Clerk said the Local Government Board had no more power to compel the Managers to afford information to the ratepayers, than they had to require boards of guardians to give the details of union expenditure. The chairman said the only control the ratepayers had over Asylums Board expenditure was by way of objection at the time of audit.

The monthly return of the Registrar-General for Scotland for November last, shows that during that period the births of 3323 children were registered in the eight principal towns; also, the deaths of 2127 persons: due allowance being made for increase of population, this latter number is 398 under the average for the month of November during the last ten years. A comparison of the deaths registered proves that the mortality was at the annual rate of 15 per 1000 persons in Paisley, 18 in Aberdeen, 20 in Edinburgh, 21 in Leith and in Perth, 22 in Glasgow, 23 in Greenock, and 24 in Dundee. The zymotic class of diseases proved fatal to 369 persons, and constituted 17.3 per cent. of the whole mortality; this rate was, however, exceeded in Glasgow, Edinburgh, and Greenock. Scarletina was the most fatal epidemic, having caused 92 deaths, or 4.3 per cent. of the mortality. Fever caused 42 deaths; of these 9 were tabulated as typhus, 32 as enteric, and 1 as simple continued fever. Whooping-cough was responsible for 41 deaths, measles for 40, diphtheria for 36, croup for 36, and diarrhoea for 35. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 465, or 21.9 per cent. Those from consumption alone numbered 192, or 9.0 per cent. One male and four females were

aged ninety years and upwards, the eldest of whom was a cabinet-maker ninety-five years of age.

It is reported from Oldham that a butcher under treatment at the Corporation Hospital there, in a fit of delirium caused by confluent small-pox, threatened his nurse, and compelled her to open the room door. She immediately sought assistance, but meanwhile the man made off, though only partially dressed, walked through the streets, and finally reached his home. Here he was wrapped in blankets and conveyed back to the hospital in a neighbour's cart. Altogether he was two hours in the streets, and he now lies in a most critical state. Fears also are entertained that other cases may result from his wanderings through the public thoroughfares in his efforts to reach his own house.

The Act "to consolidate the Alkali Acts of 1863 and 1874, and to make further provision for regulating alkali and certain other works in which noxious or offensive gases are evolved," came into operation on the 1st inst. It provides for registration of alkali, sulphuric acid, chemical manure, gas liquor, nitric acid, sulphate and muriate of ammonia, and chlorine works. The owners of such works are to use the best practicable means for preventing the discharge of noxious and offensive gases from them, and they are to be under the supervision, at all reasonable times, of the inspectors appointed by the Local Government Board. The penalty for infringement of the Act is £20 for the first offence, and £50 for every subsequent offence, together with a further sum, not exceeding £5 a day, for every day for which such subsequent offence has continued.

The prize subject for the Howard Medal for 1882 is, "On the State of the Prisons of England and Wales in the Eighteenth Century, and its Influence on the Severity and Spread of Small-pox among the English Population at that period." The essays are to be delivered on or before June 30 next.

The Berlin correspondent of the *Daily Telegraph* states that the Sanitary Exhibition, which is to be held there in 1882 under the special patronage of the Empress and the Crown Prince, will include all scientific modern appliances for the preservation of health and the saving of life. Though not, strictly speaking, international, the gathering is one to which foreign inventors are solicited to contribute, so that as many useful articles as possible may be brought before the German public. The exhibits will be divided into forty groups, and will comprise everything in the slightest degree appertaining to sanitary matters.

THE PROPOSED CONVALESCENT HOME FOR INFECTIOUS DISEASES IN DUBLIN.

WE regret to state that this project of establishing a Convalescent Home for infectious cases in Dublin, first mooted in the beginning of 1879, when small-pox was rife in that city, has practically terminated in a *fiasco*. A meeting of the Committee was held in the Mansion House, Dawson-street, Dublin, on Friday, December 30, when it was proposed by John Nickson, Esq., seconded by R. W. Boyle, Esq., J.P., and passed unanimously—"That this Committee, acting in accordance with the power given them by the public meeting of subscribers held on December 8, 1881, do accept the offer of the Governors of the Cork-street Hospital, as contained in their letter of June 2, 1881, and do hereby authorise the Finance Committee to collect all outstanding subscriptions and discharge all claims on the Fund, and, after audit, hand over the balance to the Managing Committee of the House of Recovery, Cork-street, for the purpose of increasing the accommodation in their institution for patients recovering from infectious diseases." The Committee then adjourned.

ARMY MEDICAL DEPARTMENT.

THE officers of the Army Medical Department have fair reason for complaint as to the delay which has taken place in filling up the departmental vacancies caused by the retirements of Surgeons-General Shelton, on October 23, and Thompson, on November 13 last. At the time of Surgeon-General Shelton's retirement it was announced that his retention for six months as head of the medical branch of the office of the Director-General would not interfere with the current of departmental promotion, which, however, has ever since been at a standstill, and the Department naturally wants to know why. Brigade-Surgeons Innes and Farmer also retired, the former on September 14, and the latter on October 15 last, and their places still remain vacant. There appears to be a general impression that the delay arises from the struggle which is still being carried on between the two systems of promotion, namely, that by selection and that by seniority. This struggle is not limited to the sphere of the Army Medical Department, but is part of the much larger question of Army promotion generally. The principle of promotion by selection has been explicitly laid down by the Secretary of State for War, but has not yet received the full and frank recognition to which it is entitled at the hands of the authorities at the Horse Guards. Meanwhile, the officers concerned are suffering at a steadily increasing ratio, as, although the commissions of those promoted will, of course, be antedated and proper pay secured to them, the "allowances" which are granted only from month to month are being withheld from them.

THE PARIS WEEKLY RETURN.

THE number of deaths for the fifty-first week, terminating December 22, was 1088 (565 males and 523 females), and among these there were from typhoid fever 30, small-pox 9, measles 16, scarlatina 1, pertussis 6, diphtheria and croup 34, erysipelas 6, and puerperal infections 9. There were also 39 deaths from acute and tubercular meningitis, 49 from acute bronchitis, 79 from pneumonia, 70 from infantile athrepsia (29 of the infants having been wholly or partially suckled), and 25 violent deaths (22 males and 3 females). The deaths are slightly more numerous than for the preceding four weeks, although there has been a considerable diminution in the deaths from diphtheria (34, in place of 60 in the fiftieth week). The increase of deaths for the present week has been chiefly formed by persons of more than sixty years of age. During the week there were admitted into the hospitals 66 cases of typhoid fever, instead of 60 the week before; 16 cases of small-pox, instead of 26; and 28 cases of diphtheria, instead of 37. There were 286 marriages registered during the week. The births for the week amounted to 1173—viz., 590 males (414 legitimate and 176 illegitimate) and 583 females (407 legitimate and 176 illegitimate): 114 infants (61 males and 53 females) were born dead or died within twenty-four hours.

LAUGHING-GAS AS AN ANÆSTHETIC DURING LABOUR.

IN a paper recently published in the *Archiv für Gynäkologie*, Dr. Stanislaus Klikowitsch, of St. Petersburg, advocates the use of nitrous oxide for the purpose of obtaining anæsthesia during labour. He has employed a mixture of four parts of nitrous oxide and one of oxygen, kept and supplied under a sufficient pressure to make its density the same as that of atmospheric air. The author has a miniature gasometer, in which he stores it; for obstetric purposes he carries it in an india-rubber bag, which he puts under the pillow of the patient. The advantages which he claims for it are the following:—1. Its use is quite free from danger, either to mother or child; and it has no unfavourable effect in pro-

longing labour, contrasting in this respect advantageously with chloroform. 2. It without doubt does away with pain in all the stages of labour. 3. By means of this mixture complete anæsthesia can be obtained without loss of consciousness, and therefore without diminishing the action of the voluntary muscles: the fullest possible power is thus available for the expulsion of the child. 4. Absence of vomiting, and often, if vomiting have begun, relief to this symptom; absence also of any period of excitement, and of the after-consequences of anæsthetics—nausea, headache, dyspepsia, etc. 5. The anæsthesia can be continued throughout the whole period of labour, without any cumulative effect; since during the intervals of pain the effect of the preceding inhalations completely passes off. 6. The presence of the medical man is not indispensably necessary for the administration of this anæsthetic. The chief objections to the use for this purpose of nitrous oxide are its comparative costliness, and that the gas and the necessary apparatus are not so portable as could be desired. We should be inclined ourselves to dissent from the statement which the author puts sixth in his list of advantages.

LIGHTNING CONDUCTORS.

SOME of our readers may be glad to know that the Report of the Lightning-Rod Conference, formed by delegates from the Meteorological Society, the Royal Institute of British Architects, the Society of Telegraph Engineers, and the Physical Society, has been published. The Conference commenced its work three years ago, and amassed a vast amount of information. The Report contains a description of the intended purposes of a lightning conductor; a statement of the features in the construction and erection of such conductors, about which there is a great difference of opinion; the decisions on the points in question arrived at by the Conference; and a simple code of rules for the erection of them which will be understandable by any ordinary non-technical person. We will hope that this code of rules will be published separately ere long, as the Report, published by Messrs. Spon and Co., 16, Charing-cross, forms a large volume, and costs 7s. 6d.

THE SANITARY CHRONICLES OF THE PARISH OF ST. MARYLEBONE.

MR. A. W. BLYTH, the Medical Officer for the parish of St. Marylebone, in his report for the month of November last, places the death-rate of his district at 19.2 per 1000—an extremely low rate for the month in question, which is to be ascribed, he thinks, to the lessened number of fatal chest complaints, owing to the spring-like temperature which has prevailed during the period. Isolated cases of small-pox have occurred in different parts of the parish, the disease appearing to be somewhat on the increase. There has also been quite an epidemic of chicken-pox, causing much inconvenience among certain educational establishments. Typhus fever as yet cannot be pronounced extinct in the parish, several cases having occurred during the month; in nearly all of them the sufferers had been in actual contact with others already afflicted: one nursed a patient who died in hospital, another living in the top room of a house sat with a patient prior to his removal to hospital, a third was in constant communication with a recently discharged patient. Mr. Blyth calls attention to the loss of time which occurs in removing pauper patients to hospital. When the sufferer does not belong to the pauper class the removal is very speedy, in one case quoted occupying only three hours from the time of sending away the first telegram. In the case of a pauper, after seeing the patient he has to go to the relieving officer, who in his turn sends for the district medical officer to inspect and certify. The certificate

obtained, the relieving officer endeavours to remove the patient, but the friends object, and the relieving officer is bound to report the fact to the sanitary authorities. A magistrate's order has to be procured, and ultimately the patient is removed. This sometimes involves a delay of twenty-four hours. The Relief Committee, though extremely anxious to assist in every possible way, is powerless to depart from the ordinary routine. At the same time, Mr. Blyth admits that, in the majority of pauper cases, nothing like the delay quoted occurs.

PATHOLOGICAL SOCIETY—ANNUAL GENERAL MEETING

The annual general meeting of this Society was held on Tuesday last, January 3. The attendance of members was fairly good. The following gentlemen were elected officers for the ensuing year—*President*: Samuel Wilks, M.D., F.R.S. *Vice-Presidents*: William Bowman, F.R.S.; George Buchanan, M.D.; Thomas Buzzard, M.D.; William Henry Broadbent, M.D.; Andrew Clark, M.D.; John Croft; Jonathan Hutchinson; S. James A. Salter, F.R.S. *Treasurer*: George Johnson, M.D., F.R.S. *Honorary Secretaries*: Joseph Frank Payne, M.D.; Henry Morris. *Council*: Evan Buchanan Baxter, M.D.; John Cavafy, M.D.; Walter Butler Cheadle, M.D.; John Curnow, M.D.; Sir Joseph Fayrer, K.C.S.I., M.D.; William Miller Ord, M.D.; R. Douglas Powell, M.D.; George Henry Savage, M.D.; Reginald Southey, M.D.; Thomas Tillyer Whipham, M.D.; W. Morrant Baker; J. N. C. Davies-Colley; Alban Henry G. Doran; Thomas Ridge Jones, M.D.; Joseph Lister, F.R.S.; John Langton; Edward Nettleship; Robert William Parker; Warren Tay; William Johnson Walsham. Mr. Morris (the Surgical Secretary) read the report of the Council, which showed that the Society was in a flourishing condition. It now counts 637 members, which is the largest number ever reached. Of these, thirty-one were elected last year. During the same period sixteen members have been lost to the Society, eight by resignation and eight by death. Among the latter may be mentioned the names of Rolleston, Pirogoff, and Vogel. The late President (Mr. Hutchinson), before giving up his office, brought forward two proposals. The first was that a sub-committee be formed to examine into the *Transactions*, with a view to complete all incomplete cases. This Committee was now at work, and it was proposed in due time to issue their report, either separately or otherwise, as might seem most convenient. Mr. Hutchinson's second proposal dealt with the study of the pathology of the diseases of animals; and this too, in a somewhat restricted manner, had also been carried out. A sub-committee had been nominated and permission had been obtained through Professor Flower to examine animals dying in the Zoological Gardens. It was hoped that important information would in course of time be obtained not only of the diseases of animals (at present very little understood), but also of their possible effects in causing human diseases. The financial condition of the Society was shown to be satisfactory, there being a balance at the bank of £139. Mr. Kesteven moved the adoption of the report, which was seconded by Dr. Crocker and carried unanimously. Mr. Bryant moved the thanks of the meeting to the retiring members of Council, and Dr. Cholmeley seconded it. It was carried by acclamation. Dr. Barlow replied on behalf of the retiring officers. Dr. Coupland was nominated on to the Morbid Growths Committee in place of Dr. Greenfield, whose removal to Edinburgh deprived the Society of his services. The meetings during the past year had been well attended, and the communications of great interest. The usual business of the Society was not interfered with. Some very interesting communications were made, among which may be mentioned that by Dr. Zancarol (of Alexandria) on

the Bilharzia hæmatobia, a parasite chiefly or largely affecting the urinary mucous membrane, and giving rise in the bladder to calculus. Several large and many smaller calculi were shown, which Dr. Zancarol had removed from the natives in the hospital at Alexandria (Egypt). The full report will appear in due course.

BROMPTON HOSPITAL LECTURES.

WE are very glad to learn that henceforth the abundant clinical and pathological material at the Brompton Hospital will be utilised for the purposes of more systematic teaching. The lectures and demonstrations, which have hitherto been delivered in short courses, and at comparatively long intervals, will in future be continued throughout the academical year on Wednesdays at four o'clock. The adoption of a fixed day and of a fixed hour will be to the advantage of many who in the past have wished to attend, but have failed to obtain information as to the special time at which lectures were delivered. The opening of the new buildings on the south side of the Fulham-road will add greatly to the existing opportunities for clinical study. The new out-patient department, which is now in full operation, and the new wards, which will accommodate about 150 new patients, will afford unusual facilities to students and to practitioners anxious to observe cases of the varied diseases of the lungs and of the heart in larger numbers than can be collected in the wards of a general hospital. The Hospital regulations have hitherto precluded the admission of cases in the acute stages; it has now been decided that a proportion of the beds in the new buildings shall be exclusively devoted to the treatment of acute cases. The usefulness of the Hospital in an educational sense will thereby receive an important extension. A list of the lecturers for the current year will be published in the *Diary of the week*.

DENGUE FEVER AT MALTA.

DURING the past month several cases of this form of fever have occurred among the garrison of Malta. The type does not appear to have been very well pronounced, particularly as regards the "bone-racking" pains; but our correspondent informs us that the desquamation, particularly of the hands, after a few days' malaise and muscular pains, was sufficiently well marked to indicate the nature of the antecedent symptoms.

THE TREATMENT OF RUPTURE OF THE UTERUS BY DRAINAGE.

WE have before mentioned in these columns the treatment by drainage of rupture of the uterus. Although the cases as yet published are scarcely numerous enough to warrant a definite conclusion, yet this treatment seems hitherto to have been followed by extremely good results. In a recent number of the *Archiv für Gynäkologie*, Dr. Felsenreich reports another successful case; and he adds to it some remarks on the *rationale* of this treatment, which have led us to again refer to it. To understand why treatment succeeds, we must know why patients not treated die, and what unfavourable condition it is that the treatment removes. Now, the peritoneum has a great power of absorption, and, by exudation of organisable lymph, of encapsuling and shutting off foreign matter from the general peritoneal cavity. There is no evidence that liquor amnii in the peritoneum is particularly hurtful, and large quantities of blood may be effused without causing peritonitis. There therefore seems no reason why the mere presence of the child, of blood, and of liquor amnii in the peritoneal cavity should not be tolerated. And as to drainage, the experience of ovariologists tends to show that under ordinary conditions the peritoneum will recover from

the effects of surgical interference better without the drainage tube than with it. The special service which drainage renders in rupture of the uterus is probably this: the peritoneum not merely has to dispose of some amount of blood and perhaps liquor amnii effused into it, and to repair a solution of its continuity; in addition, there is constantly being poured into it, through the rent, secretion from the interior of the uterus, as well as from the wound, and these secretions partly accumulate and decompose. It is these decomposing fluids which excite inflammation, and drainage, by keeping open a channel for their escape, and so preventing their stagnation, gives the patient a better chance of recovery.

DEATH OF DR. BRIERRE DE BOISMONT.

DR. BRIERRE DE BOISMONT, the eminent alienist, has just died in his eighty-fifth year, at St. Mandé, where he had lived retired for several years. His career has been a very active and fertile one; it commenced by his publishing with Marx the "Leçons Orales" of Dupuytren, and a mission into Poland in 1831 for the purpose of studying the cholera, and which procured him some of those honorary distinctions with which he was so amply provided. A great number of publications in various parts of medical science preceded those which at a later period conferred upon him so high a position in all that regards mental alienation. These would occupy too much space to be cited, but mention may be made of his co-editorship of the *Annales Médico-Psychologiques*, with Baillarger, Moreau, Longet, and Cerise, and of some of his principal works in this branch of medical science, as—The Influence of Civilisation in the Development of Insanity; Acute Delirium; The Interdiction of the Insane; The Employment of Prolonged Baths in the Acute Forms of Insanity; Suicide and Lucid Insanity; Hallucinations, etc. His different works all bear the stamp of an acute observer and elegant writer (says the *Gazette des Hôpitaux* for December 31), as do also his innumerable communications on all questions relating to psychology and mental alienation, which are contained in the volumes of the different learned societies to which he belonged, and especially the Paris Medico-Psychological Society, of which he was one of the founders, and one of the most zealous and eminent members.

MIDLAND MEDICAL SOCIETY.

At the ordinary meeting of the Society, held at the Medical Institute, Birmingham, December 7 (John Manley, Esq., President, in the chair), Mr. William Thomas exhibited a patient on whom he had performed excision of the elbow for ankylosis due to a cicatricial contraction from a burn. Before the operation the joint was firmly ankylosed, at a right angle, the forearm being fully pronated, and completely fixed in that position. The skin over the back of the joint was thin, red, and tightly stretched; and was frequently ulcerated. The whole arm was atrophied. The entire joint was excised (on September 20) by a single longitudinal incision, which healed well, leaving little trace; since that time the arm had increased in size, regained considerable power of voluntary flexion, and in a slight degree pronation and supination. Mr. Bennett May showed a male patient, aged forty years (with specimen), from whom he had, three weeks previously, removed the tongue, part of the lower jaw, and floor of the mouth, in one piece, for epithelioma; some enlarged lymphatics under the jaw being removed at the same time. The patient had made an excellent recovery. Mr. Langley Browne read a paper on "Retroversion and Anteversion of the Uterus at the Full Term of Pregnancy." Four cases were quoted. In all, after some

months of misery, symptoms of labour set in at term. Diagnosis from extra-uterine foetation was impossible till an anæsthetic was administered, when it was possible to turn the uterus, delivery being completed in one case by version, in the other three by long forceps. The beneficial effect of large doses of ergot just before or just after the termination of labour, as an aid to involution, was strongly insisted on, as, from the results of a great number of cases so treated, the author was sure that the risks of septicæmia were diminished, post-partum hæmorrhage averted, and the numerous train of diseases depending upon subinvolution greatly reduced. The dose always given was one fluid ounce of the tincture, repeated in half an hour if the uterus was not firmly contracted. Mr. J. W. Taylor read a paper (with demonstrations) on a ready method of using tin-plate in making splints. The tin-plate used is cut one inch or more wider than the required size of the splint, half an inch or more on each side being bent up at right angles to the rest of the tin. This is placed upon a treble layer of wadding, slightly larger every way than the piece of tin. Each side of the wadding is curled upon the up-standing and corresponding edge of tin, which is then pressed down forcibly by the thumb into close conjunction with the body of the splint. The splint can be bent to any angle or curve desired. Mr. Gilbert Smith showed a man with a chancre at the matrix of the nail on the little finger of the left hand. The man was left-handed. A well-marked syphilitic skin eruption (psoriasis) and other secondary syphilitic symptoms were present.

EXCESSIVE DEVELOPMENT OF THE BREASTS IN EARLY PREGNANCY.—M. Monod exhibited at the Paris Société de Chirurgie (*Bulletin*, No. 10) a woman in whom the breasts, by the fourth month of pregnancy, had acquired an enormous size. In her two former pregnancies they also acquired a great size, and in the second pregnancy large quantities of milk were discharged. On the present occasion this great size has been reached in two months, the woman becoming very thin. M. Monod suggested that the induction of premature labour would be admissible if the woman's health gave way. M. Desprès observed that as the woman's former pregnancies terminated favourably, in spite of the size of the breasts, the induction of labour was not indicated, but that suction of the breasts might be useful. M. Horteloup, however, was of opinion that if the woman became more exhausted, induction of labour should be undertaken, say, in about a month. M. Sée could not approve of M. Desprès' proposal to depend upon suction, for this, in fact, would have the effect of increasing the secretion of milk, the excess of which is the cause of the exhaustion present. He, therefore, favoured the induction of labour.

VASELINE.—Dr. Langlebert exhibited at the Paris Therapeutical Society some emulsions of vaseline which he had prepared by means of gum tragacanth, which held in suspension various medicinal principles, such as sulphate of zinc or copper, etc., and which may be employed for urethral or other injections. The active substance of the injection becomes, so to say, more adherent to the diseased parts, with which it thus remains longer in contact than in the case of ordinary injections. These samples had been prepared for more than three weeks, and in only one of them was there any sign of a commencing separation of the vaseline. Moreover, this fatty body has the advantage over others of not becoming rancid. In answer to an observation by Dr. Créquy, that ointments prepared with vaseline are less fitted for the promotion of medicinal absorption than those made with lard, Dr. Vigier observed that, as the result of a series of researches he had made on this point, he had found that lard is the best fatty body when medicinal absorption is desired, vaseline coming next, and glycerine last. This last, therefore, is a bad vehicle when cutaneous absorption is in view, but an excellent one when we wish to avoid this; so that we may by its aid avail ourselves of the parasiticide action of corrosive sublimate without fearing the production of mercurial poisoning.—*Gaz. Hebdom.*, Dec. 23.

FROM ABROAD.

PROFESSOR THIRY ON CLINICAL TEACHING.

PROFESSOR THIRY, of Brussels, prefaced his course of clinical lectures, delivered at the St. Pierre Hospital (*Presse Méd. Belge*, December 18), with the following observations:—

“For those of you who have not hitherto attended our clinical course, it is necessary that I should initiate them, at the very beginning, into the principles which guide us in this teaching, and into the method which in their interest we think should be pursued. And first, what ought we to understand by clinical teaching? What is its object? It must not be concealed from you that clinical study differs considerably from all other branches of the medical sciences to which you have hitherto applied yourselves. It is their complement and crown. The procedures which it brings into play in nowise resemble those which have been your guide in the various courses forming part of the university programme. Hitherto it has been your intellect that has been addressed in the attempt that has been made to completely furnish your mind with the multiple knowledge which is required for the study of disease at the bedside of the patient. Without doubt, by pursuing your labours in the laboratory and dissecting-room you might become erudite persons, or even *savants*; but most assuredly you would not be made into practitioners in the true sense of the term. From the point of view of clinical teaching, the scientific possessions which you have amassed will enable you to profit fully from the examination of the numerous and varied pathological facts which will be submitted to your appreciation. For the attainment of the end which we propose to ourselves of transforming you into truly practical men, capable of applying the scientific ideas acquired in former courses, the road is already traced. It is the development and perfecting the education of the senses—a point of capital importance, whence, in the future, both your practical aptitude and your medical authority will be the necessary result.

“This education appears, at first sight, simple enough. You deceive yourselves there, for if differences arise sometimes among *savants* in their interpretations of a fact, that is because they have derived the elements of the appreciation by different, and sometimes contradictory, sensations. And yet the facts are really what they are, and have not two modes of existence. If they seem to vary, it is that in observing them we receive different impressions, or that certain of their aspects escape us. In fact, the sensations aroused in our different senses by the examination of pathological facts are multiple; and we shall approach the truth more nearly in proportion as our impressions are more exact and complete. For example, our sight not only informs us of the colour of a body, but it also reveals to us, if it has been well exercised, the various manners in which each colour may present itself. By it also we determine the volume, configuration, regularity, extent, etc., of the lesion to which our attention is directed. Hence, we may legitimately conclude that clinical instruction should occupy itself in perfecting the senses of those who aspire to take their place in the ranks of well-taught practitioners—who alone are worthy of the confidence of the sick, are capable of truly appreciating the nature of disease and meeting it with efficacious relief.

“On your entering upon clinical study, I ought to point out to you that the methods employed in theoretical courses of pathology are not suitable here, or at least are insufficient. Up to the present time you have been confined to gaining full possession of the assemblage of the causes, of the symptoms, and of the alterations which constitute what we term ‘a disease.’ You have been taught the therapeutical procedures suited to the pathological conditions, the principal characters of which are exhibited to you. At the clinic all this is changed. It is no longer ‘a disease’ that you have before your eyes, but a pathological individuality represented by a patient. Before being able to announce your diagnosis or formulate your therapeutical indications, it does not suffice here to have accurately ascertained the anatomo-pathological lesions. It is also necessary to seek for the special characteristics proper to the individual patient, the medium which he inhabits, the multiplied influences to which he is subjected—in a word, all that can specialise his individuality, and

differentiate it from that of any other patient placed absolutely in the same conditions. It may be affirmed that two persons attacked by the same affection may present for the clinician pathological conditions completely dissimilar, and amenable to an entirely different treatment.

“Until the present time you have been exclusively engaged with pure science; but now you have to commence the study of a new science—that of application. How many deceptions you will be exposed to if you suppose that the latter has been acquired by you, thanks to the varied knowledge you have gained from your courses and your lectures! Clinical medicine, as the term indicates plainly enough, can only be taught at the bedside of the patient. The sciences which you have hitherto cultivated are, nevertheless, of great importance. They have prepared and formed your judgment, and have enabled it to authoritatively appreciate the facts which it is the office of the clinic to submit to it. The human body has no longer any secrets for you, either in the performance of the functions of its organs, or in the intimate exchanges which are operated within the molecular framework of its tissues. Anatomy and physiology are indispensable for him who would render an exact account of the pathology of an organ or a tissue. Is it possible to state with precision the value of the symptoms presented by a patient if we are ignorant of the functions of the organs and the constitution of the tissues in the normal condition? It is not without good reason that I insist so much on this point; for if you asked me to point out to you the best book to consult, in a clinical point of view, I should not hesitate to reply—a good treatise on anatomy and physiology. These two branches, the most important in medical science, are too soon laid aside; and is not this the reason why clinical instruction so often remains sterile? Take care, also, not to lose sight of the other accessory sciences, especially those which in recent times have assumed so great a preponderance in the medical world. I have already shown you how much the search for diagnostic truth is subordinated to the perfecting of the senses; and you cannot but at once see all the importance of means capable of enlarging the field of application of the senses. Do not condemn, then, the microscope, that marvellous instrument which assists us in discovering, in the midst of the tissues, the lesions which the disease leaves behind it. Let us seek from chemical analysis the precious information which would so often be wanting without its aid; and, in fact, let us accept the aid of all those happy innovations which our century has engendered, whenever progress is realised by them, and a mode of investigation rendered more powerful. At the clinic we reject no means capable of enlarging our scientific horizon, but we also take care not to give to any of them an illusory importance, or to allow of usurpations capable of perverting the truth by announcing pretensions which would tend to the denial of all the conquests of the past.

“When you have thus determined exactly the pathological changes, is your task terminated, and can you from these data alone build up an efficacious treatment? Nothing of the kind. The study of causes has also its importance, and is all the more indispensable because these causes specify in the greater number of instances the nature of a case, and forgetting them might give rise to irrational therapeutical procedures. In proportion as you advance in clinical study, you will admit with me that etiology may be summed up in three orders of causes:—1. *Simple causes* act ordinarily by means of simple irritation at the same time on the nervous and circulatory systems—the two principal factors of organic life. Whatever may be their formula, these causes all terminate in the same result. The sole differences that exist between them only relate to their variable energy, their extent of action, and the susceptibility of the organs and tissues. 2. The *special causes* are inherent to different ages, to professions, to habits, to temperaments, to constitutions, to modes of living, to climates and seasons: special causes creating what we term endemic and epidemic diseases—causes which seem to deeply modify the nature of lesions which they engender, thus disturbing the regularity of their course, and opposing unwonted resistance to various forms of treatment. 3. *Specific causes*, having no analogy with the preceding, are generally represented by a specific virus, the matrix of which is extremely variable, and the pathogenic action of which is transmitted by mediate or immediate contact, or by

the air itself loaded with its elements. In this third category should also be ranged animal and vegetable parasites, from the acarus of the itch, the achorion of favus, to the vibriones, bacteria, bacteridia, and all those infinitely minute beings to which the pathology of the day attributes so important a part.

"I terminate these general considerations by warmly engaging you to judge for yourselves of the exactness of what I advance. Our principles being those of free examination, it has always been repugnant to me to weigh upon your convictions with the sole dictum of the professor. I invoke no other title than that of long experience in order to desire to be your guide in the vast field of observation at the bedside. After that, see for yourselves, observe and appreciate, and if my words do not correspond with the reality of the facts which I shall have occasion to bring before you, do not fear to contradict me. Understood in this way, clinical instruction will prove to you most profitable, without taking into account that for me it will be the source of a lively satisfaction."

REVIEWS.

Diseases of Women: including their Pathology, Causation, Symptoms, Diagnosis, and Treatment. A Manual for Students and Practitioners. By ARTHUR W. EDIS, M.D. Lond., F.R.C.P., M.R.C.S., Assistant Obstetric Physician to the Middlesex Hospital, etc. With illustrations. London: Smith, Elder, and Co. 1881. Pp. 541.

IN the work before us Dr. Edis appears to have endeavoured to supply a distinct want. Admirably full of information as is the concise and clear "Students' Guide" of Dr. Galabin, the general practitioner yet needs a larger variety of therapeutic resources, and fuller description of the details of their application, than it would be possible to give in a work of that size. At the same time there are few general practitioners who have the leisure, while keeping themselves abreast of other departments of medical science, to master the encyclopædic treatise of Dr. Barnes. For such, Dr. Edis's book seems to have been intended. It is full and clear on the topics relating to treatment; especial pains have been taken with the parts relating to certain diagnostic problems which are at once difficult and of common occurrence, e.g., abdominal tumours; while in the pathological sections the author has usually contented himself with a brief *résumé* of the doctrines commonly accepted here and in America, making little attempt to sift, criticise, or strengthen what he finds advanced by authors of repute. He has thus produced a book which, we believe, will be extremely useful to general practitioners, although it may not mark an epoch in the history of gynæcological science.

The chief point about the work which we should have liked to see otherwise is the very modest estimate which the author appears to take of his own experience and judgment. Not only does he adopt, as it seems almost without question, any view that is endorsed by a well-known name, but he seems to think the very words are too precious to be tampered with, and so puts in quotations (mostly, but not exclusively, from Barnes and Thomas), which, however excellent in their place, yet in many instances present no such striking originality or force of expression as to make it impossible to render the thought otherwise. We suppose Dr. Edis has done so because he thought either that he could not improve upon the quotations, or that the author's *ipsissima verba* would carry more weight than a statement of his own. We feel inclined to demur to both propositions. As to the first, the book shows that Dr. Edis can write very clearly; and as to the second, if we want to know what Dr. Barnes and Dr. Thomas have to say, we refer to their works. We turn to this book to learn what Dr. Edis has seen, and what opinions he has formed; and it is a little disappointing to be so often put off with quotations.

We might, however, accept these extracts as showing Dr. Edis's entire agreement with the author quoted, were it not that they sometimes contradict one another, or are negatived by statements made by Dr. Edis himself elsewhere. We turn, for instance, to the chapter on lacerations of the cervix, a morbid condition about which we have heard so much lately. We first have Emmett's statement quoted, that "at least one-half of the ailments among those who have borne chil-

dren are to be attributed to lacerations of the cervix." A little further on we read, "Simpson regarded laceration of the cervix uteri not only as of frequent occurrence, but so common after first labours as to be regarded as a reliable sign of labour having occurred, and not the result of mismanagement." On the next page we find, "If the rent heals up, the patient's health will in time become re-established; but should no union take place, she will never be the same woman that she was before her labour" (page 180). If both these latter statements are correct, it should be a rare exception for a woman to have good health after having borne a child: which is absurd. Another instance: speaking of the operation for imperforate hymen, Dr. Edis says, "It is questionable whether the practice of injecting water into the uterus after an operation of this kind be safe" (page 387). On the following page we have Emmett quoted—we should have supposed, because the author thought his views sound; but we read, "He washes out the vagina and the partially dilated uterus thoroughly with warm water." Nor can we say that we think the author always happy in his quotations. For instance, at page 463 he transfers to his pages a list of the causes of metrorrhagia, by Thomas, which seems to us both illogical and incomplete. We find it hard to believe that Dr. Edis could not have improved upon it.

The passages we have remarked upon in the foregoing paragraphs may be taken as illustrative of what seems to us a pervading feature of the work, and one which we regret, viz., the want of expression of individual judgment, the reproduction of theories and opinions impartially from all quarters, without close, critical examination—we had almost written, without digestion. Thus, on dysmenorrhœa, we have, in one place, a summary of the views of Barnes and his followers on obstructive dysmenorrhœa. We have also, in another, a condensation of Matthews Duncan's statements as to spasmodic dysmenorrhœa, "generally described as obstructive or mechanical." Both accounts are very clear and concise. Now, it is well known, from their writings, that these two authors are almost wholly opposed to one another, both as to the pathology and treatment of the common disease described. We are unable to discover with whom Dr. Edis agrees; or, if he thinks each of them partially right, how far he regards their statements as correct. From the fulness with which operations for the enlargement of the cervical canal are described, we should infer Dr. Barnes's to be the practice favoured by the author; but we read (page 447), "Allowing that the (catamenial) loss is eight ounces, and the average duration four days, that leaves two ounces to pass within the twenty-four hours—that is, 960 drops; this, divided by 24, gives 40 drops every hour, or about two-thirds of a drop a minute. Now, when we remember that the cervical canal is at least three-sixteenths of an inch in diameter, it seems difficult to imagine how this could offer sufficient impediment to the passage of so small a quantity at a time as above calculated." If this calculation have any bearing on the question, the cases in which incision of the cervix is called for must be exceedingly rare. We therefore are at a loss to discover when and why Dr. Edis thinks the operations (for enlarging the cervical canal) which he describes so well ought to be performed.

With regard to treatment we find the same thing to be desired. Much of the treatment, of course, is of the simple and common-sense kind which universal experience has proved to be of service, the author's injunctions only differing from those of other authors in that they are more full and precise. But we find also some things recommended of which we much wish the author would give his experience. For instance, suppression of menstruation is generally a conservative effort of nature, and the result of constitutional causes, and it is doubtful whether it ever does harm, although patients often imagine it the cause, instead of the effect, of their illness. It, moreover, most often occurs in young virgins, in whom local interference is to be avoided if possible. We therefore have difficulty in approving the following list of remedies for this symptom (page 432):—"The uterine sound may be passed daily for a few days . . . or once a week . . . a small laminaria tent . . . a faradic current . . . one rheophore may be placed on the cervix uteri, and the other in front. . . . Intra-uterine, so-called galvanic stems . . . the india-rubber elastic stem, the expanding stem, or the vulcanite stem." Some of these means are dangerous, and all are of doubtful utility. The only direction Dr. Edis gives for their choice is: "When the

general health has been improved as far as practicable, and emmenagogues have been tried and failed, there are still means . . . that may be resorted to if deemed advisable." When and why advisable, Dr. Edis does not state.

We believe that the author would have produced a better book if he had been more ambitious; if, instead of aiming at including every kind of treatment that is practised or practicable, every theory that is backed by a well-known name, he had set himself to examine the evidence in support of the many pathological hypotheses that have been set up to explain diseases of the pelvic organs, and to carefully test new methods of treatment so as to discover their precise limits of utility, their dangers and disadvantages. However, the book as it is will be found very useful. We hope in future editions it will contain a little more of Dr. Edis, and a little less of so-called "authorities,"—for there is no such thing as authority in science. Even if it should omit to mention the latest American invention it will be none the worse.

A Treatise on Foreign Bodies in Surgical Practice. By ALFRED POULET, M.D. London: Sampson Low, Marston, Searle, and Rivington. 1881.

THIS work professes to supply a place wanting in surgical literature, and in it all the published information with regard to foreign bodies has been collected together and properly digested. In the two volumes before us only the foreign bodies in the natural passages—intestinal tract, air-passages, genito-urinary organs, ear, nose, and gland-ducts—are treated of; the more useful series of cases of foreign substances penetrating the surfaces of the body—as, for instance, foreign bodies in the eye—being apparently left for a later work. When we mention that the foreign bodies in the natural passages alone occupy nearly 600 closely printed pages, we give some idea of the extent to which the subject has been enlarged. The book is full of all sorts of cases, giving every conceivable kind of foreign body and of methods of treatment which have been adopted for removal. It is interesting enough, but the whole subject is so spun out that nowadays few men will have time to sit down and read it through. As a book of reference, however, where there is time to consult it, it cannot fail to be valuable, and may therefore very suitably form part of the library of those who most frequently come across these accidents.

A Practical Guide for Inspectors of Nuisances. By F. R. WILSON. London: Knight and Co. 1881.

MANY of the less wealthy sanitary authorities, unable to command the services of an architect or engineer of high standing, have wisely availed themselves of the permission given by the Public Health Act to combine the offices of surveyor and inspector of nuisances, and appointed a practical man generally conversant with the building trade. Such men, however intelligent and conscientious, are, nevertheless, as the examinations held by the Sanitary Institute have too clearly shown, frequently ignorant of the sanitary bearings of their work, and it is for their use that the book before us has been compiled by one of themselves.

It gives so much of each of the Sanitary Acts as concerns their duties, reproduces *in extenso* numerous orders of the Local Government Board and similar documents, and provides model specifications and directions for the carrying out of sanitary works in general. The most frequent evils existing in rural districts, and the difficulties met with in practice, are freely illustrated by instances which have come within the author's experience as Surveyor for the Alnwick Rural Sanitary District. The style of the book is at times marred by awkward grammatical construction, and the use of provincial expressions, but these are minor defects which will scarcely be appreciated by the class of readers for whom it is intended. We must, however, remark that, in reference to the powers of seizure of unsound meat, it would have been well if the author had given some description of the appearances presented by the flesh of animals dying of particular diseases, as a guide to the inspector, instead of somewhat conflicting and confused accounts of their effects positive and negative; and that the carbuncles noticed by Dr. Livingstone to be produced by the eating of the flesh of cattle dying of pleuro-pneumonia were not "malignant," an expression suggestive of a totally different disease. Again,

we were surprised not to find Roger Field's flushing tank even mentioned when the author spoke of the use of natural springs, etc., for flushing sewers. Moreover, to assert that insanitary surroundings are always sufficient to account for the existence of fevers is scarcely in accord with modern zymotic pathology, ignoring, as the statement does, their origination in specific contagia.

The publishers' advertising pages, which fill a quarter of the volume, contain all the forms required by the officers of sanitary authorities, and many useful books. On the whole, the work will be found by those to whom it is addressed a useful and trustworthy guide.

GENERAL CORRESPONDENCE.

FARMAR AND SEALEY FUND.

LETTER FROM SURGEON-GENERAL LONGMORE.

[To the Editor of the Medical Times and Gazette.]

SIR,—With reference to my letter which you kindly inserted in the *Medical Times and Gazette* of October 15 last, in which I mentioned the fact of a subscription being in progress for a testimonial to Corporal Farmar, V.C., and Private Sealey, of the Army Hospital Corps, for their gallant conduct at the disaster of Majuba Hill, and gave a short account of the wounds by which they had been disabled for further military service, I have now the pleasure to state that £170 has been subscribed, and that this amount, equally divided, has been presented to the two men by the Director-General of the Army Medical Department. The sum named includes a generous donation of twenty-five guineas from the family of the late Surgeon Landon, A.M.D., under whose directions Corporal Farmar and Private Sealey were carrying on their duties at the time that lamented young medical officer received his mortal wound. The presentation has been notified by a circular from the Director-General to the officers and men of the Army Medical Department.

I am, &c., THOS. LONGMORE, S.-Gl. H.P.,
Netley, January 3. Professor of Military Surgery.

DROPSY IN THE FÆTUS OBSTRUCTING LABOUR.

LETTER FROM MR. E. L. HUSSEY.

[To the Editor of the Medical Times and Gazette.]

SIR,—The case reported by Dr. Herman reminds me of one which occurred in 1864, in the practice of the late Mr. Owen, of this city.

A lady, about thirty-eight years of age, whom he had attended in former confinements, supposed herself to be in the eighth month of pregnancy. Symptoms of labour having commenced, she sent to Mr. Owen early in the morning. He found the head presenting, and from the small size he concluded that the fœtus could not be more advanced than the eighth month. The pains continued regular throughout the day, but no progress was made in the labour; the head remained fixed in the position in which it was first felt. In the afternoon I met Mr. Owen accidentally in the street, and he mentioned the case. He was then about to return to the patient, and he added that, if he found no further progress had been made, he should apply forceps and endeavour to extract the child.

About nine o'clock at night he sent a message, requesting me to come and assist him. When I entered the room, the head of the child was lying on the bed, separate from the body, and Mr. Owen was making preparation to perforate the thorax. He told me that as no advance had been made, he applied the forceps, but with all the force he used he could not move the body; at length the head had separated at the neck, as I had seen. I passed my finger into the axilla and brought down one of the arms; and, using some considerable degree of force in the attempt at extraction, I pulled the arm off at the shoulder, without being able to move the body of the child. We next cut away a part of the ribs, and passed the perforator into the thorax, and through the diaphragm into the abdomen. This was followed by a profuse discharge of a clear watery fluid. It was evident that the obstruction arose from the enlargement of the

fœtus; and, the dropsical fluid having been evacuated, we expected that the fœtus would soon follow; but the body did not move under the expulsive pains. By drawing down the remaining arm, and folding a napkin round the shoulders, we got a firm hold, and we were able to exert a greater amount of power, and to add our efforts to those of the uterus, which was contracting actively. The mother complained severely of the pain produced by the passage of the child's body. As soon as the abdomen could be reached, I thrust the perforator through the parietes, and evacuated another collection of clear watery fluid, as much in amount as upon the former puncture. It required the exertion of a considerable degree of force to complete the extraction.

Notwithstanding the removal of the fluid by the two punctures we had made, the abdomen remained greatly distended. The fœtus appeared to be in the eighth month. It was without distinctive mark of sex. The external organs were not developed. The fluid in the abdomen was contained in cysts, of which two had been punctured during the labour. Other cysts seemed to be still distended with fluid. The origin and connexions of these were not ascertained by the partial dissection which was the only examination we had the opportunity of making. The fluid which escaped during the labour may be estimated as rather more than two pints.

The placenta came away without difficulty, and the lady recovered rapidly. Her next confinement passed without anything unfavourable.

Oxford, January, 1882.

I am, &c.,

E. L. HUSSEY.

IODOFORM IN SURGERY.—Privat-docent Mikulicz terminates a paper upon the most recent employment of iodoform in Billroth's clinic with the statement that all the trials made with this substance justify the following conclusions:—1. Iodoform is, for all conditions in which the direct application of an antiseptic is indicated, an excellent means, deserving preference to all other substances hitherto used for this purpose. 2. The iodoform dressing may be used as a substitute for the carbolised gauze dressing of Lister, and is preferable to this on account of its simplicity and certainty. 3. The iodoform treatment admits of the antiseptic treatment of a wound, even under conditions that hitherto did not allow of a powerful antiseptics being pursued. 4. In wounds and ulcers already septicallly infected, iodoform, as a rule, operates more quickly and certainly than other antiseptics, while it does not irritate the tissues. 5. Iodoform acts in a specific manner on syphilitic, tubercular, scrofulous, and lupous infiltrations.—*Berlin. Klin. Woch.*, December 12.

BACTERIA AS A CAUSE OF LEPROSY.—Dr. Cornil terminates as follows a paper on the "Seat of Bacteria in Leprosy and the Lesions of Organs in this Disease," communicated to the Paris Hospital Medical Society, after detailing all the changes observed in the various organs in specimens received from Grenada:—"To sum up, the tissues which I have examined were so filled with bacteria and so modified that it was difficult even to determine what organ I had to do with. The bacteria existed in the different states of spores, extremely delicate and minute *batonnets*, and in *batonnets* of larger size containing minute grains in their interior, and large filaments formed by the *batonnets* disposed end to end in chains. The lesions in their direct relation to the bacteria were divisible into two series. 1. The leprous tubercles and infiltrations are characterised by large cells in colossal numbers, which infiltrate the diseased tissues and are filled with minute bacteria. When the leprous infiltration attacks a soft organ like the liver, or one possessing natural cavities like the testes, the bacteria become very voluminous. In these infiltrated and almost mortified tissues, which ulcerate when they have their seat in the skin or mucous membranes, the circulation is very inactive or stopped, and the capillary vessels are filled with bacterian infarctus. 2. In most of the fibrous tissues the bacteria throw out long filaments in the interstices of the fibres, the fixed cells of the fibrous tissue being little changed or normal; sclerosis or thickening of the fibrous tissue, however, often resulting in leprosy. This disease, which seems to be caused by the bacteria, and in which they play an essential part, is certainly one of the best examples that could be chosen to show their importance, and to exhibit their seat and mode of dissemination, and the lesions they give rise to."

REPORTS OF SOCIETIES

THE PATHOLOGICAL SOCIETY OF LONDON

TUESDAY, DECEMBER 20.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

DR. GOODHART read the report of the Morbid Growths Committee on Dr. Broadbent's case of Thickening of the Pericardium, which was to the effect that the growth was lympho-sarcomatous, as Dr. Broadbent had suggested.

CIRRHOSIS OF LIVER AND LUNG IN CHILDREN.

DR. PYE-SMITH showed the liver and lungs of a child nearly thirteen years of age, whose illness had extended over three or four years. When admitted to Guy's Hospital he appeared to be suffering from tubercular phthisis with great dyspnoea, the signs of advanced phthisis at the apex of each lung, pyrexia, and ascites; he died from diarrhoea. At the post-mortem there was found great thickening of pleura, great increase of fibrous tissue in the lungs, vomicae, and small spots of pneumonia, no caseation; lymph-glands of lung not caseous, but somewhat softened. There was extensive chronic peritonitis, and a great mass of hardened subperitoneal fat in the pelvis, between rectum and bladder. Liver much deformed, with irregular fibrous bands across it; on section it showed patches of congestion, and even hæmorrhage, with irregular areas of fibrous tissue. Ulceration of whole of large intestine. Microscopically the liver showed islands of gland-substance surrounded by dense masses of fibrous tissue; a section of the liver was placed under a microscope. He thought that this was essentially a case of cirrhosis. There was no evidence that the child had had alcohol in excess. The general look of the organs was like that of old syphilis, but there were none of the characteristics of congenital syphilis, nor was the mother syphilitic. It was not a case of true phthisis, as the absence of caseation and the abdominal changes negatived that idea. It was a case showing that even in children several organs may take on the same change, and one characterised by slow destructive fibroid infiltration.

DR. MAHOMED saw this boy on each of his admissions to Guy's Hospital. He was struck by the intense cyanosis, and the fact that his severe symptoms had lasted two years, which seemed to put the idea of phthisis quite out of court. He diagnosed chronic bronchitis and bronchiectasis, with secondary nutmeg liver, running on to cirrhosis and peritonitis. The lungs actually showed dilated tubes, and many of the cavities were lined by mucous membrane. He thought this view of the pathology best explained the clinical and anatomical facts.

DR. N. MOORE thought there were many instances of a form of cirrhosis in children entirely apart from spirit-drinking, and they quite established the fact that there was a separate form of cirrhosis. He showed such a case to the Society last year. Last week he made a post-mortem examination on a girl aged thirteen. Her illness began with a cough; seventeen weeks after, she died with ascites. He found double pleurisy, old and recent, and peritonitis. The liver was an example of extreme cirrhosis; the surface was not hobnailed, but it was bright yellow in colour, with large bands of contracting fibrous tissue permeating the organ. There was no fibrous change in the lung. There was no history of drink. In all such cases that he had seen there was a history of preceding inflammation of pleura and peritoneum, and he thought the inflammation spread into Glisson's capsule, and so caused cirrhosis.

DR. CREIGHTON thought that this case was tubercular. There were cavities in the lung and ulcers in the intestine. He thought it was a case of fibroid tubercle.

DR. CURNOW referred to a case of pure cirrhosis of the liver in a child, shown to the Society by Dr. Griffiths, of Swansea. The liver was taken from a child free from tubercle or history of drink and syphilis, and was a typically cirrhotic one. Cirrhosis of the liver also occurs in animals which do not take alcohol.

DR. G. BUDD had pointed out that it might occur in cases of imperfect assimilation, quite independent of alcohol and

syphilis. He thought it was doubtful if we were justified in attributing cirrhosis to alcoholic excess. But beyond cases of local disease there are those of concurrent fibroid growth in liver, lung, peritoneum, spleen, and glands. He thought it would add nothing to our knowledge of such cases, clinically or pathologically, to call them tubercular.

Dr. PAYNE had seen three or four cases of typical cirrhosis of the liver in children. But Dr. Pye-Smith's case was not typical cirrhosis. He doubted whether tubercle was the right word to use, but yet he thought it was very nearly correct. In many cases a growth has been found in the peritoneum and liver, which undergoes a purely fibroid change, and is therein unlike tubercle. He had described and figured such a case in the volume of the *Pathological Transactions* for 1877. He thought this was a special form of disease which would some day have to be named.

Dr. WILKS said this form of disease was quite different from the ordinary cases of cirrhosis, and there was much yet to be worked out in this question. He had seen one case of peritonitis which spread to Glisson's capsule. The theory that chronic hepatic congestion can lead to chronic inflammation had not been accepted in this country, and he had looked in vain for any case lending support to that view.

Dr. BARLOW referred to a case of lung-disease like that in Dr. Pye-Smith's case, in which the convolutions of the brain were sclerosed, but the liver was not affected, though it showed a condition of general fibroid change. He had seen cases of cirrhosis of the liver associated with adherent pericardium in which there was venous obstruction, which certainly supported the view that chronic congestion of the liver might lead to fibroid overgrowth.

Dr. BUZZARD had under his care a case of extensive scleroderma with cavities in the lungs and symptoms of advanced phthisis, which he thought resembled the specimen shown to-night.

Dr. PYE-SMITH replied that the dilated bronchial tubes were the result, and not the cause of the chronic lung induration, and he thought the liver-change was certainly not due to congestion, as the right heart was not dilated, nor had there been any jaundice, nor would this theory account for the chronic peritonitis. The ulceration was quite unlike tubercular ulceration. The lump in the pelvis consisted of indurated fat—fat with fibrous tissue—and at the time of death there was no evidence of tubercle of any kind.

DISEASE OF SUPRA-RENAL CAPSULES, WITHOUT BRONZING.

Dr. BEDFORD FENWICK showed a specimen of Addison's disease of the supra-renal capsules from a case in which there had been no bronzing of the skin. The man was recently in the London Hospital under the care of his father, Dr. S. Fenwick. He had been a labourer, and had had fair health. About four months previously he caught cold; a month afterwards his urine became high-coloured and scalding, and he was languid and suffered from vomiting. On admission he was very languid; the pulse was very feeble; there was no pigmentation of skin or the mucous membranes, and no signs of visceral disease; there was tenderness over the epigastrium. Addison's disease was diagnosed. On September 28, on attempting to get out of bed, he fainted, and soon after died. At the autopsy the organs generally were healthy. The liver was enlarged, and the left kidney was much larger than the right. Both supra-renal capsules were enlarged, hard, and nodulated; they were translucent, and in places yellow. He had collected all the cases of Addison's disease that had been recorded in the *Pathological Transactions* during the last fifteen years, and found they were thirty in all—twenty-three males and seven females. The youngest age of males at death was five, the oldest fifty-five; the youngest age of females nineteen, and the oldest fifty-five. Average duration of illness in non-bronzed cases was 4.8 months, but in bronzed cases it was 26.8 months. If patients, without bronzing of the skin, died in one-fifth of the time of the others, the greater fatality was due to the constitutional disease, and the mischief causing this must be more intense. The two non-identical effects must have two different causes, or the same cause acting upon two different parts; the former idea might be certainly excluded. He thought the constitutional changes were due to degeneration of the medullary part of the supra-renal capsule, while the pigmentation was due to a chemical change in the blood resulting from the degeneration of the cortex of the capsule.

The skin was well bronzed in nineteen cases, slightly or not at all in eleven. In four out of these eleven cases only one capsule was affected, and more often the right. In the case shown to-night the disease clearly mapped out the medulla.

Dr. WILKS said that Addison had known that in the early stage the bronzing was less marked, and thought that some cases died before bronzing occurred.

CASES OF ULCERATIVE ENDOCARDITIS.

Dr. GOODHART showed five specimens of ulcerative endocarditis, out of six cases which occurred at Guy's Hospital within a period of sixteen weeks. Foreign observers have shown that this disease is bacteric in origin. He wished to point out that ulcerative endocarditis is a sequel to chronic thickening and inflammation; in five out of the six recent cases there had been previous chronic inflammation; out of sixty-nine cases in Guy's Hospital, sixty-one were the subjects of chronic disease, four were primary, and four were of the right side of the heart. He at one time thought that perhaps the cause of this association was to be found in the concomitant renal disease, and many of the cases showed this complication. But he was not disposed to take this view now. He had noticed that ulcerative endocarditis occurs in a series of cases. He had drawn out a table of all the cases of fatal heart-disease that had occurred at Guy's Hospital in the last eight years, and it showed that the cases of ulcerative endocarditis occurred in groups spread over a few days or weeks only, with intervals of months without any such case. They seem therefore to be dependent upon some climatic influence. He thought the long list of cases excluded the element of chance. During the last few weeks there have been epidemics of typhoid, scarlatina, typhus, and also of these cases of endocarditis. Within the last three months at Guy's Hospital the post-mortem examinations have been nearly all on cases of contagious epidemic diseases, typhoid, erysipelas, pyæmia, etc. As showing some analogy he referred to surgical scarlatina, which is true scarlatina, is not prevented by antiseptics, and attacks other cases than wounds, such as morbus coxæ and phthisis; but in all the cases there is an inflamed spot in which some vegetable poison can grow. In this disease the inflamed endocardium appeared to form a suitable nidus for the growth of low vegetable organisms at times prevalent in the air. Four of his cases were primary, but were all associated with low inflammation of the uterus. As an explanation of the four cases occurring in the right heart, he suggested that the serous membrane might cultivate the germs up to the degree of malignity sufficient to produce this form of disease. Ulcerative endocarditis is a bad term, as in many cases there is no ulceration; and he preferred the name of "Fungating Endocarditis"; as a rule the degree of fungation is a measure of the severity of the disease.

Dr. WILKS said that Dr. Osler showed at the Congress drawings of micrococci balls that he had seen in the vegetations.

Dr. COUPLAND asked if Dr. Goodhart included all cases of vegetating endocarditis, even those occurring in rheumatic fever, as cases of infective endocarditis.

Dr. GOODHART replied that he did.

Dr. N. MOORE said that at St. Bartholomew's Hospital there had been two cases of ulcerative endocarditis this year.

Dr. S. MACKENZIE said that this disease undoubtedly occurs in cases of old valvular mischief. Some of these cases ran such a long course that he thought the time of death was hardly a fair guide to the period of occurrence of the disease. In some of his cases he had found micrococci in the organs.

SUBCUTANEOUS FIBROID NODULES IN CONNEXION WITH RHEUMATISM.

Dr. BARLOW showed a woman, aged twenty-nine, who had had two previous attacks of rheumatism, and was just recovering from a third. She had also very serious disease of the mitral and aortic valves. There were certain nodules on the olecranon processes, external malleoli, patellæ, tendons of wrist, pinnæ, and on cranium. The nodules were subcutaneous, some movable, some fixed, and all painless. He looked upon them as homologous with the inflammatory basis of cardiac valvular vegetations. He also showed a cranium from a boy with some of these nodules on it.

CONGENITAL ABSENCE OF RADIUS AND OF THUMB.

Mr. SHATTOCK showed two cases of congenital absence of radius. The thumb was also absent. In mammalia generally it was more common to find the ulna absent, as being the less important bone; while in birds the opposite usually obtained.

FILARIA MEDINENSIS.

Dr. FINLAY showed specimens of *filaria medinensis* for Dr. Mackellar of Glasgow, who holds that the local irritation caused by these worms is not set up by the death of the parent worm, but by the presence in the tissues of the young escaped from the broken pieces of the adult female.

TRANSPPOSITION OF AORTA AND PULMONARY ARTERY.

Dr. PEACOCK showed for Dr. Ashby, of Manchester, a specimen of transposition of aorta and pulmonary artery, with patent foramen ovale and impervious ductus arteriosus. Usually patients die within a few hours or weeks, but in some cases they live for months; this child lived seven months. The ventricles as well as the arteries were transposed.

OBITUARY.

REUBEN JOSHUA HARVEY, M.D. UNIV. DUB.,
F.K.Q.C.P., M.R.I.A.

WITH a feeling of heartfelt sorrow we record the death of this distinguished physician and physiologist at the early age of thirty-six years. Dr. Reuben J. Harvey died at his residence, 7, Upper Merrion-street, Dublin, on the night of Wednesday, December 28, on the tenth day of petechial typhus. There can be little doubt that his fatal illness was contracted in the wards of Cork-street Fever Hospital, of which institution he was one of the Physicians.

At the beginning of December, Dr. Harvey, who then seemed to be in the enjoyment of perfect health, attended a meeting of the Physiological Society in London on the evening of the 8th, and returned to Dublin on the 9th, travelling all night. On Saturday, the 10th, he visited the wards of Cork-street Hospital, where there was very little typhus at the time. On the morning of the 11th, however, he examined a little boy who had been admitted the previous evening, on the eighth day of typhus; and this patient he continued to attend daily, until his own illness had lasted at least twenty-four hours.

On December 19 Dr. Harvey did not feel well; next day he suffered from severe headache; on the 21st he examined as Censor at the King and Queen's College of Physicians; and on the 22nd he was too ill to leave his bed. Early on Friday, the 23rd, maculæ appeared, and ultimately there was a profuse rash, which very soon became petechial. Almost incessant wakefulness was among the first dangerous symptoms, but at a very early stage the heart became weak and its action rapid, and the respirations ran up to sixty in the minute without any pulmonary complication to account for this untoward symptom. The downward progress was swift, and the end came on the evening of the tenth day.

Reuben Joshua Harvey was the only child of Dr. Joshua R. Harvey, for many years one of the leading physicians of Cork, and Professor of Midwifery in Queen's College, Cork, in connexion with which chair he enjoyed a wide reputation. His son, the subject of this memoir, was born in the spring of 1845. Having been partly educated in England, he returned to Cork, where he attended some courses of lectures at the Queen's College; but ultimately he entered Trinity College, Dublin, in 1862, and speedily won a foremost place among the mathematical honour men not only of his year, but of the entire undergraduate class.

At that time religious tests had not been abolished in the University of Dublin, and as Harvey was then a member of the Society of Friends, he was disqualified to compete for a foundation scholarship. In 1865, however, he was elected to a non-foundation Scholarship in Mathematics, after passing a brilliant examination; and in the following year he won the third gold medal in the same subject at the Moderatorship Examination for the degree of Bachelor of Arts.

Having taken his degree, Harvey devoted himself to the study of the profession of medicine, and as a medical student his career was as distinguished as it had been as an undergraduate in Arts. In 1868 he won the first Medical Scholar-

ship; and in Michaelmas Term, 1870, he obtained a high place at the examination for the degrees of Bachelor of Medicine and Master in Surgery, which were conferred upon him on December 14. Shortly afterwards he proceeded to the great medical schools at Vienna and Würzburg, where he studied for some time under Professors Stricker and Recklinghausen. Returning to Dublin, he soon became attached as Demonstrator in Anatomy to the School of Physic in Trinity College, Dublin; but after some time he joined the Carmichael School of Medicine, then situated in North Brunswick-street, Dublin, in immediate proximity to the group of hospitals called the "House of Industry Hospitals," namely, the Richmond (Surgical), the Whitworth (Medical), and the Hardwicke (Fever). On July 25, 1872, Mr. Henry Curran, one of the Lecturers on Anatomy and Physiology in the Carmichael School, died of renal disease, and Dr. Harvey was chosen as his successor—at first sharing the chair with Dr. Purser, the present King's Professor of Institutes of Medicine in the School of Physic in Ireland, but ultimately becoming sole Lecturer on Physiology alone. On Dr. Gerald Yeo's appointment as Professor of Physiology at King's College, London, in 1875, Dr. Harvey was chosen Registrar of the Carmichael School—a post he continued to fill with high ability and great advantage to the school until two years ago, when increasing demands upon his time obliged him to relinquish the duties of the office. But within the period of Dr. Harvey's Registrarship a vast development of the resources of the school was effected. Fully persuaded of the necessity of a hospital connexion with the school, Dr. Harvey repeatedly urged upon the Governors of the House of Industry Hospitals the advantages which would mutually accrue to the hospitals and the school were the bonds of union between these institutions drawn closer. But in vain; and at last, when all efforts to secure this end had failed, Dr. Harvey planned the bold scheme of moving the school from its comparatively unfavourable position on the north side of the city, to a central site on the south side. With indomitable zeal and courage he worked on, and the erection of the commodious premises in Aungier-street which now bear the name of the "Carmichael College of Medicine" may be regarded as the first great triumph of his short, but useful, life.

But this was an administrative success. As a practical physiologist and as a teacher he achieved a legitimate and deserved reputation. The popularity of his practical demonstrations in physiology was undoubted, and was increasing year by year. His laboratory was one of the finest, if not the finest, in Dublin, and it had been designed by himself. Possessed of considerable mechanical skill, he had superintended the construction of many beautiful instruments for use in the physiological laboratory, and when overtaken by his last illness he was busily engaged in testing the scientific fitness of a magnificent myograph. The members of his class almost idolised him, and became inspired with his own spirit of industry and research. Nor was he without his reward. His colleagues, the Directors of the College, will not soon forget the genuine pleasure which he felt and expressed at the remarkably good answering of the five candidates who, towards the close of last November, competed for the Carmichael Scholarship in Anatomy and Physiology. The pains he had taken with his class were rewarded when the result of the examination showed that the lowest answerer had scored so as to entitle him to the scholarship if even better men had not competed.

So far we have spoken of Harvey's college and school career alone; but he occupied other important positions besides those in the Carmichael College. He was for several years attached to two hospitals—as Assistant-Physician to the House of Industry Hospitals, and as Physician to Cork-street Fever Hospital. He was also Pathologist to the Coombe Lying-in Hospital. The first of these appointments he resigned only a few weeks before his death, and the most pathetic incident connected with his fate is that he contemplated resigning his physicianship to Cork-street Fever Hospital, in order to devote himself exclusively to physiology, at the very time when he was struck down by fever contracted in the wards of that institution.

In 1876 Dr. Harvey became a Licentiate of the King and Queen's College of Physicians, and on October 18, 1879, he was elected a Fellow of the College. Only twelve months elapsed before he was chosen Censor—a post the duties of which he was engaged in discharging when actually on the

third day of his fatal illness. He was highly esteemed in the College, and no junior Fellow was more attentively listened to in debate, not more on account of the weight of his arguments than from his honest, fearless method of expressing them.

Dr. Harvey was a reformer in the best sense of the word, and he has left his mark on the by-laws of the College of Physicians, the Pathological Society of Dublin, and the Carmichael College of Medicine alike. No man was more anxious for the improvement and "levelling up" of medical education and examination, and it must have been a sore trial to him to watch the snail-like pace at which reform followed the enunciation of his advanced opinions. Under all circumstances he was the student's best friend, and the day is, perhaps, not far distant when the value of his proposed reforms will be fully recognised and utilised.

At the time of his death Harvey was, and for many years previously had been, an incessant worker, and so it happens that he has left but few writings behind him. To the *Irish Hospital Gazette* for 1873 he contributed an admirable paper on the "Histology of Tendon," and in the *Centralblatt* for 1875 an article from his pen appeared, entitled, "Ueber die Zwischensubstanz der Hoden." Besides these papers, an occasional communication to the Medical Society of the College of Physicians, the Pathological Society of Dublin, the famous (in Dublin medical circles) Biological Club, and the Royal Irish Academy, of which he was a member, makes up the sum total of his written contributions to medical scientific literature.

Of Dr. Harvey's private pursuits and home life this is not the place to speak at any length. Suffice it to say that he was a devoted husband, a loving father, a trusted and faithful friend, and above all an earnest Christian. He had married in 1873, and his wife and three little children survive him. The writer of this memoir knew him intimately from the time that he "chummed" with him in College, and, as the years passed on, he saw Harvey's character mould itself until at last it might most fitly be described in the words—"Treu und Fest."

J. W. M.

JAMES OLDHAM, F.R.C.S.

WE have to record the death of Mr. James Oldham, of Brighton and Hayward's Heath. Mr. Oldham was residing at the latter place at the time of his death. He had retired to his private estate there for more than a year. He was born on January 17, 1817; died December 26, 1881. With untiring energy and devotion Mr. Oldham practised his profession in Brighton from the year 1842 until his retirement about the time named—October, 1880. His education was private. He was apprenticed to Dr. Pye-Smith, the father of Dr. Pye-Smith of Guy's; entered at Guy's, October, 1838, and was dresser to Mr. Aston Key. Though not of a strong frame or constitution, Mr. Oldham had nevertheless been able to do the work of a very large—probably one of the largest private practices in the county; and it may certainly be added, to the advantage and satisfaction of those who had the privilege of his care.

The profession of medicine will never lose the respect due to it from the public whilst maintained by such good services, and rendered with such delicate feeling and high sense of honour, as are daily afforded by gentlemen in general practice of the type and character of Mr. Oldham. Happily, he was but one of a large class to be found in distinguished positions all over the country. One of his younger colleagues in Brighton writes thus of him:—"My acquaintance with him was of a personal kind from my early boyhood, and all the time he was as kind to me as an elder brother, always taking an affectionate interest in my welfare, and winning my love and esteem."

Without being scientific or learned in the scientific shibboleths of the time, he had that practical acquaintance with disease which is of more immediate value to the sick; and those who knew him intimately through his long and arduous practice will feel how faithfully and adequately he set before him and attained the proper aims of medicine, whether for alleviation or for cure. This testimony will find a ready echo amongst Mr. Oldham's many friends and distinguished patients.

Mr. Oldham was very liberal. He purchased and supported a coffee-house tavern, and, at Hayward's Heath, St. Christopher's Home for Sick Children was almost entirely

supported by him. He was a liberal contributor to the church and schools in his neighbourhood, and in these and many other ways gave largely of that fortune which he had accumulated from his deservedly successful practice.

Mr. Oldham married, in 1844, Anna, second daughter of Thomas Brame Oldfield, Esq., of Champion Hill, Surrey. He leaves three sons and two daughters. Mr. Oldham's death, at the age of sixty-five, though early, was not premature. For some years his health had been failing; he had gradually become anæmic, with enfeebled circulation and albuminuria. During his long and tedious final illness he had the continued and affectionate services of his friend Dr. Byass, of Cuckfield. He was one of the founders of the Brighton and Sussex Medico-Chirurgical Society thirty-five years ago, which now numbers eighty-eight members.

NEW INVENTIONS AND IMPROVEMENTS.

"OLD HEAD BLEND" IRISH WHISKY.

WE have received from R. F. Walsh and Co., of Kinsale, and 3, Bucklersbury, E.C., some samples of this whisky. The blend is a combination of choice makes of Irish pot-still whiskies, matured in sherry casks in Messrs. Walsh's bonded warehouses at Kinsale, and bottled in bond. This arrangement—the having the whiskey bottled in bond, under the supervision of Her Majesty's Excise or Customs—provides a positive guarantee that the whisky is genuine, and is of the age and strength it is represented to be. Excellent security is thus given to the purchaser of the purity and age of what he drinks; a very satisfactory matter at all times, but of special importance with regard to spirits. The "Old Head Blend" Whisky sent to us is marked as five years old, and it is to be observed that, the spirit being blended in bond, the age on the label is the age of the youngest whisky comprised in the blend. It is a delicately tinted, well-flavoured, soft, mellow whisky, entirely free from fiery heat or acidity. We have no doubt that it is a safe and wholesome as well as a pleasant spirit.

SAINT RAPHAËL TANNIN WINE.

THIS wine has now been long enough before the public to have quite justified its claim to be of marked value and utility as a tonic. The wine is a generous one, rather sweet, and with a hint to the palate that it contains tannin, and must therefore be taken "with brains." As a tonic, and in rightly chosen cases a spur to digestion, the wine will be decidedly of value; and it will be found to be very pleasant, as well as useful, in many cases of debility and anæmia. It can be obtained of Messrs. E. Gallais and Co., 27, Margaret-street, W.

ÆSCULAP WATER.

THIS aperient water, from the bitter-water springs near Buda-Pesth, is a pure natural Hungarian mineral water. It is a strong aperient, its activity depending chiefly on the large amount of the sodium and magnesium sulphates contained in it. It contains a larger proportion of antacids than do other well-known Hungarian waters, which gives it a special value in some cases. It is said also to be less unpleasant to take than are most of the bitter waters; but that is a question of taste, about which we will not venture an opinion. What is indisputable is the fact that the Æsculap Water is decidedly a valuable and useful addition to the list of purgative waters at the command of the medical man. It can be obtained from the Æsculap Bitter-Water Company, Saracen's Head-buildings, Snow-hill, E.C.

OLEUM RICINI INSIPIDUM.

MESSRS. ALLEN AND HANBURY, of Plough-court, E.C., have introduced a castor oil that is absolutely free from taste and smell, and have thereby earned the gratitude of countless multitudes of persons of all ages. That the oil is castor oil is proved by its remaining physical and its medicinal properties; but it is as free from smell and taste as olive oil. It is therefore taken very much more readily; it does not produce nausea or after-taste; and, withal, it retains the full aperient properties of ordinary pure castor oil.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following are lists of the candidates who have passed the recent examinations:—

M.D. EXAMINATION.

Richard Legg Batterbury, King's College; Charles Edward Beevor, University College; Frederick Lucas Benham, B.S., University College; James William Bond, B.S., University College; George Ariei Herschell, St. Thomas's Hospital; Alfred Austin London, University College and Middlesex Hospital; John William Meek, Guy's Hospital; Angel Money, B.S., University College; Arthur Newsholme, (a) St. Thomas's Hospital; James Isaac Paddle, B.A., B.Sc., University College; Bilton Pollard, B.S., University College; Arthur Bancks Prowse, St. Mary's Hospital; James Ryley, University College; John Shaw, St. Thomas's Hospital; Charles Edward Sheppard, B.S. (Gold Medal), St. Thomas's Hospital; Robert Percy Smith, B.S., St. Thomas's Hospital; Nestor Isidore Charles Tirard, King's College; Benjamin Arthur Whitelegge, B.Sc., University College; Dawson Williams, B.S., (a) University College.

LOGIC AND PSYCHOLOGY ONLY.

Arthur Edward Buckell, University College; Claude Clarke Claremont, B.S., University College; Norman Dalton, King's College; Charles Walter Evans, University College; John Thomas Fanlkner, Owens College; William Henry Lamb, Guy's Hospital; Arthur Edward Permewan, University College; Thomas Carleton Raiton, Manchester and St. Bartholomew's Hospital; Mark Feetham Sayer, University College; Robert Spencer Wainwright, Guy's Hospital; Edward George Whittle, University College.

M.B. EXAMINATION FOR HONOURS.

MEDICINE.

First Class.—Robert Maguire (Scholarship and Gold Medal), Owens College; William Arbuthnot Lane, (b) (Gold Medal), Guy's Hospital; Charles Alfred Ballance, St. Thomas's Hospital; Beaven Neave Rake, Guy's Hospital, and Bernard Rice, St. Bartholomew's Hospital—equal; Richard Bredin, Liverpool Royal Infirmary and Guy's Hospital, Henry Maudsley, University College, Frederick Walker Mott, University College, and Frederick Rufenacht Walters, St. Thomas's Hospital—equal.

Second Class.—Alexander Barron, Liverpool Royal Infirmary.

Third Class.—Victor Alexander Haden Horsley, University College; Anundrao Atmaram, B.Sc., University College, Henry Thurstan Bassett, Guy's Hospital, and Charles Alfred Dagnall Clark, St. Bartholomew's Hospital—equal.

OBSTETRIC MEDICINE.

First Class.—William Job Collins, B.Sc. (Scholarship and Gold Medal), St. Bartholomew's Hospital; Robert Maguire (Gold Medal), Owens College; Thomas George Stonham, London Hospital; Charles Alfred Ballance, St. Thomas's Hospital.

Second Class.—Beaven Neave Rake, Guy's Hospital; Victor Alexander Haden Horsley, University College; Richard Bredin, Liverpool Royal Infirmary and Guy's Hospital; John Davidson, King's College, and Frederick Rufenacht Walters, St. Thomas's Hospital—equal.

Third Class.—Charles Alfred Dagnall Clark, St. Bartholomew's Hospital, and John Frederick William Silk, King's College—equal; William Lenton Heath, St. Bartholomew's Hospital; James Harper, St. Bartholomew's Hospital; Thomas Dixon Savill, St. Thomas's Hospital.

FORENSIC MEDICINE.

First Class.—Frederick Walker Mott (Scholarship and Gold Medal), University College; Robert Maguire (b) (Gold Medal), Owens College; Charles Alfred Ballance, (a) St. Thomas's Hospital; Thomas Dixon Savill, (a) St. Thomas's Hospital; Henry Maudsley, (a) University College; William Job Collins, St. Bartholomew's Hospital; Edward Sabine Tait, St. Bartholomew's Hospital.

Second Class.—Alexander Barron, Liverpool Royal Infirmary, and Victor Alexander Haden Horsley, University College—equal; Frederick Rufenacht Walters, St. Thomas's Hospital; Thomas Crisp, St. Thomas's Hospital; William Lenton Heath, St. Bartholomew's Hospital; George Ryding Marsh, Guy's Hospital.

Third Class.—Beaven Neave Rake, Guy's Hospital; Mark Purcell Mayo Collier, St. Thomas's Hospital; Henry Hoole, Charing-cross Hospital; William Arbuthnot Lane, Guy's Hospital; John Frederick William Silk, King's College; Harold Swale, St. Thomas's Hospital.

B.S. EXAMINATION.

First Division.—Charles Alfred Ballance, St. Thomas's Hospital; Mark Purcell Mayo Collier, St. Thomas's Hospital; Victor Alexander Haden Horsley, University College; William Arbuthnot Lane, Guy's Hospital; Henry Maudsley, University College; Frederick Walker Mott, University College.

Second Division.—William Job Collins, B.Sc., St. Bartholomew's Hospital; Philip Rhys Griffiths, University College; William Lenton Heath, St. Bartholomew's Hospital; Amand Jules McConnell Routh, University College.

B.S. EXAMINATION FOR HONOURS.

SURGERY.

First Class.—Victor Alexander H. Horsley (Scholarship and Gold Medal), University College; Charles Alfred Ballance (Gold Medal), St. Thomas's Hospital.

Second Class.—Mark Purcell Mayo Collier, St. Thomas's Hospital; Henry Maudsley, University College; William Lenton Heath, St. Bartholomew's Hospital.

Third Class.—William Job Collins, B.Sc., St. Bartholomew's Hospital; William Arbuthnot Lane, Guy's Hospital.

SUBJECTS RELATING TO PUBLIC HEALTH.

Hutton Castle, St. Thomas's Hospital; Edward Francis Willoughby, University College.

(a) Obtained the number of marks qualifying for the medal.

(b) Obtained the number of marks qualifying for the University Scholarship.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on December 27:—

Aikins, William Henry, M.B. Toronto, 51, Lambeth Palace-road, S.E.
Allen, William Arthur, M.B. Toronto, 40, St. Mary's-square, S.E.
Benoly, Nathaniel, M.D. Wurzburg, 6, Church-crescent, Victoria-pk., E.
Casson, Harwood, Wylie, Bath.
Cowan, Frederick Samuel, 5, St. James's-square, W.
Dummere, Howard Howse, 74, Victoria Dock-road, E. [road, S.E.
Edmondson, William Constantine, M.B. Toronto, 51, Lambeth Palace-
Foxwell, William Arthur, Weston-super-Mare. [Edmunds.
Gilder, Sherrington Ernest Alfred, Walsham-le-Willows, Bury St.
Hawksworth, Herbert, Eddington, Canterbury.
Morton, Charles Alexander, 6, Alwyne-villas, N.
Pilkington, Frederick William, 18, Merrick-square, S.E.
Puddicombe, Francis Morgan, 49, Mall-road, W.
Thornton, Bertram, 24, Fulham-place, W.
Wallace, Alfred Cyprian, Magdalen, Streatham, S.W.
Warner, Percy, Guy's Hospital, S.E.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at meetings of the Board of Examiners on the 3rd and 4th inst., and, when eligible, will be admitted to the pass examination, viz.:—

Atkinson, William, student of the Sheffield School.
Bateman, Llewellyn J., B.A. Cantab., of the Cambridge School.
Bennett, Frank A., of the Birmingham School.
Beresford, Ralph, of the Sheffield School.
Boyd, Campbell, of the Dublin School.
Bristow, William M., of the Liverpool School.
Charlick, Alfred J., of the Liverpool School.
Codd, H. Robinson, of University College Hospital.
Currey, Robert H., of the Liverpool School.
Dagg, Trevor A., of St. Bartholomew's Hospital.
Davis, Weston P., of St. George's Hospital.
Dean, Herbert M. L., of the Manchester School.
De'Ath, G. Hanby, of Guy's Hospital.
Hanson, Albert G., of the London Hospital.
Hart, George, of the Manchester School.
Hick, Joseph, of the Leeds School.
Hughes, Henry M., of the Leeds School.
Jones, H. Shirley, of the Birmingham School.
Keightley, Archibald, B.A. Cantab., of the Cambridge School.
Lloyd, Henry, of the Liverpool School.
Parker, George, M.A. Cantab., of the Cambridge School.
Perkins, R. F. Thornton, of the Birmingham School.
Pigg, George R., of the Manchester School.
Sinclair, Thomas, of the Belfast School.
Tayler, Herbert P., B.A. Cantab., of the Cambridge School.
Twinn, Thomas W., of the Liverpool School.
Underwood, Thomas, of the Manchester School.
Wadia, D. Rastamji, of the Bombay School.
Wilkinson, Clement J., of St. Thomas's Hospital.
Young, James, of the Manchester School.

Eighteen candidates having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including three who had an additional three months.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners, held on December 12 and following days, the undernamed gentlemen passed their final examinations for the letters testimonial of the College, and having taken the declaration and signed the roll, were admitted Licentiates, viz.:—

William H. Allen, William T. Beattie, Walter Boyd, Mark A. Brennan, Edward B. Cashel, Edmund N. Close, James H. Daly, Thomas Daly, Henry Dillon, Joseph J. P. Doyle, William D. Gray, Richard Hatch, Michael Hearn, Matthew M. Hutchinson, John J. Irvine, James Keenan, Arthur Kennedy, James Laffan, Edward Lamblin, Charles J. M'Cormack, Thomas P. M'Cogbry, Cornelius M'Donnell, Matthew J. M'Quaid, Patrick J. Murphy, Joseph J. Neill, Frank T. P. Newell, Robert J. O'Dea, John O'Keeffe, James O'Neill, John A. Scott, William K. Shea, and Joseph G. Stack.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 22, 1881:—

Clark, Matthew Gunning, 294, King's-road, Chelsea.
Dexter, William Parker, Clifton-road, Bristol.
Faunce, Charles Edmund, Victoria-road, Guernsey.
Greenway, John Henry, Lessness Heath, Belvedere.
Hamilton, George Clarendon, 45, Finsbury-square.
Hathaway, Harold George, Chatham.
McMillan, George Furse, 161, Adelaide-road, N.W.
Mason, Arthur Edwin, Leicester.
Martin, Joseph Henderson, Northampton.
Rice, Bernard, Stratford-on-Avon.

The following gentlemen also passed on the 29th ult.:—

Fielden, William Eckett, Walthamstow.
Holdsworth, William Thomas, Handsworth.
Hoole, John, 135, Hornsey-road.
Moore, Robert Cormichael, Belfast.
Tarleton, Edward Eustace, Cheddar, Somerset.

The following gentlemen on the 22nd ult. passed their Primary Professional Examination:—

Graham, George Hubert, Guy's Hospital.
Hitchcock, Alfred John, London Hospital.
Serres, John James, St. Bartholomew's Hospital.

And the following on the 29th ult. :—

Duckworth, Frederick Victor, Guy's Hospital.
Nutt, William Anthony, London Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

SHEPPARD, CHARLES E., M.D. Lond.—Resident Assistant-Physician and Medical Registrar to St. Thomas's Hospital, *vice* G. Gulliver, M.A., M.B., appointed Assistant-Physician.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Fleet-Surgeon Robert Humphrys, R.N., has been placed on the retired list of his rank from December 30.

BIRTHS.

AMYOT.—On December 24, at Diss, Norfolk, the wife of Thomas H. E. Amyot, L.R.C.P., of a daughter.
ANDERSON.—On December 28, at Simla, Punjab, the wife of Surgeon-Major John Anderson, C.I.E., Army Medical Department, of a son.
BEAUMONT.—On January 2, at Shirley, Hants, the wife of Charles G. Beaumont, M.D., of a son.
BURWOOD.—On December 30, at Strathmore, Florence-road, Ealing, W., the wife of T. W. Burwood, L.R.C.P., of a daughter.
CLOUSTON.—On December 27, at 2, Marlborough-road, Gunnersbury, the wife of C. S. Clouston, M.D., of a daughter.
COLLINGRIDGE.—On December 30, at St. John's, S.E., the wife of W. Collingridge, M.B., of a son.
EAST.—On December 27, at Lancaster House, Goole, the wife of George E. East, M.R.C.S., of a daughter.
FOOT.—On December 21, at Wells, Norfolk, the wife of R. H. Foot, M.D., of a daughter.
HORNER.—On January 1, at Tonbridge, Kent, the wife of Arthur Claypon Horner, M.R.C.S., of a son.
STEWART.—On December 25, at 5, Essex-villas, High-road, Lee, the wife of Frederick George Stewart, M.R.C.S., of a daughter.
THEW.—On December 28, at 12, Bondgate Without, Alnwick, the wife of Edwin Thew, M.B., C.M., of a daughter.
THOMSON.—On December 31, at Sheerness, the wife of Fleet-Surgeon James Thomson, of a daughter.
TOMLINSON.—On December 31, at Freshwater, Isle of Wight, the wife of Surgeon-Major W. Winslow Tomlinson, A.M.D., of a daughter.
TWORT.—On December 24, at 2, Staff-villas, Camberley, Surrey, the wife of W. H. Twort, L.R.C.P., of a son.

MARRIAGES.

ELLIS-WEBB.—On January 3, at Mayfair, Heber Dowling Ellis, M.D., of 7, Howard-square, Eastbourne, to Frances Audrey, eldest daughter of the late Rev. Robert Holden Webb, M.A., Rector of Essendon, Herts.
EVANS-STEVENSON.—On December 28, at Stoke, near Guildford, Evan William, eldest son of William Evans, M.D., late Indian Army, of Bath, to Henrietta Elizabeth, youngest daughter of the late Henry Stevenson, Esq.
PEDLEY-WILKINSON.—On December 1, at Calcutta, Thomas Franklin Pedley, M.D., M.R.C.S., to Mary Hall, daughter of the late Randolph Wilkinson, Esq., Belfast.
WOOD-MELVILLE.—At Beach Hill, Campbeltown, Argyshire, William Wood, M.B., C.M., to Mary Anne McNeill, youngest daughter of the late Captain Melville.

DEATHS.

BREACH, JOHN, M.R.C.S., L.S.A., at Aston Upthorpe, Wallingford, on December 28, aged 68.
BROOKES, ADA JESSIE, wife of Frederick William Brookes, M.R.C.S., of 137, Westminster-bridge-road, at 276, Kennington-road, S.E., on December 29.
DASHWOOD, JARRETT, M.R.C.S., Consulting Surgeon, formerly of Wellington-street, Southwark, at Putney, on December 28, aged 78.
GORE, HENRY JOHN, M.D., at Tunbridge Wells, on January 2, in his 85th year.
HORTON, SELINA, wife of James Horton, M.R.C.S., of Stepney, and Drayton-park, Highbury, at 28, Drayton-park, on December 30.
KEMP, SALLY, wife of George Kemp, M.D., at Pilton, North Devon, on December 31, in her 82nd year.
PRATER, AUGUSTUS, M.D., late of Woolwich, at 90, Maison Dieu-road, Dover, on January 2, aged 70.
SWYER, R. E., M.D., at 25, Mile-end-road, on December 31, aged 59.

VACANCIES.

EPSOM UNION.—Medical Officer and Public Vaccinator. (*For particulars see Advertisement.*)
HUDDERSFIELD INFIRMARY.—Senior House-Surgeon and a Junior House-Surgeon. Candidates for the former must be doubly qualified, and for the latter they must possess, at least, one registered qualification. Applications and testimonials to be sent to Fredk. Eastwood, Hon. Secretary, not later than January 21.

LEAMINGTON AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Candidates must be duly qualified, married, and not under thirty years of age. Printed forms of application may be obtained of the Secretary, Mr. C. Wildman, 6, Woodbine-street, Leamington.

LINCOLN COUNTY HOSPITAL.—House-Surgeon. Candidates must be members of the Royal College of Surgeons of England, Edinburgh, of Dublin, and Licentiates of the Apothecaries' Company, or of one of the Royal Colleges of Physicians; graduates in medicine of one of the Universities of Great Britain or Ireland; duly registered under the Medical Act; under forty years of age, and unmarried. Testimonials as to qualifications and character to be sent to J. W. Danby, Secretary (from whom further particulars may be obtained), on or before January 16.

MONMOUTH UNION.—Medical Officer. (*For particulars see Advertisement.*)

NATIONAL DENTAL HOSPITAL, 149, GREAT PORTLAND-STREET, W.—Dental Surgeon. Candidates must be Licentiates of Dental Surgery. Applications and testimonials to be sent to Arthur G. Klugh, Secretary, on or before January 10.

OWENS COLLEGE, MANCHESTER.—Demonstrator and Assistant-Lecturer in Physiology. Particulars may be obtained of J. Holme Nicholson, Registrar, to whom applications and testimonials are to be sent up to January 7.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Epsom Union.—Mr. Laurence Potts has resigned the Leatherhead and Fetcham District: area 5290; population 2942; salary £40 per annum.

Hemel Hempstead Union.—The King's Langley District is vacant by the death of Mr. Charles Wotton: area 8350; population 2875; salary £75 per annum.

Huddersfield Union.—Dr. E. Dyson has resigned the Almondbury District: area 3709; population 9353; salary £20 per annum.

APPOINTMENTS.

Monmouth.—William Foster, F.C.S., as Analyst for the Borough for one year.

Newport Pagnell Union.—Charles Terry, M.R.C.S., L.S.A. Lond., to the First District.

Petersfield Union.—George P. Bell, M.D., C.M. Aber., M.R.C.S. Eng., to the First District.

St. Mary (Islington) Parish.—Oscar B. Shelswell, L.R.C.P., M.R.C.S., as Assistant Medical Officer and Dispenser.

South Shields Union.—James Drummond, M.D., M.C. Glasg., to the Westoe District.

Wandsworth and Clapham Union.—Henry L. P. Hardy, M.R.C.S., L.S.A. as Assistant Medical Officer and Dispenser.

Westhampton Union.—Thomas Dutton, L.R.C.P., L.R.C.S., M.B. Dur., to the Manhood District.

Wirral Union.—Edwin Wykes, M.R.C.S., L.S.A., to the Eastham District.

Workop Union.—Christopher Fleming, L.R.C.S. Ire., L.K. & Q.C.P. Ire., to the Workop District.

SEASONABLE FESTIVITIES AT THE LONDON HOSPITAL.

—On Monday, January 2, a nurses' ball was held at this institution. The arrangements were made by members of the resident staff. "Buxton" Ward was the ballroom, and was tastefully decorated for the occasion. Several members of the House Committee and the staff were present, besides the members of the resident staff, students engaged in hospital duties, the sisters, probationers, and nurses, the matron, and house-governor. Everything went off most enjoyably and successfully. On Tuesday, January 3, a number of friends of the institution visited "Buxton" and "Queen" (children's) wards to see the Christmas-trees lit up, and the presents on them distributed to the children. While the Christmas-tree rejoiced the little inmates of one ward, a "Punch and Judy" performance entertained those of the other. The visitors adjourned afterwards to the Nursing Home, where tea and coffee were provided.

DR. VIRGINIO BOMPIANI, of Dieomano, Florence, has translated the monograph "On Regressive Paralysis" by Dr. W. H. Barlow, of Manchester, and is about to publish the same in Italy.

TESTIMONIAL TO DR. TAAFFE.—A large number of ladies and gentlemen recently assembled in the Board-room of the Royal Alexandra Hospital for Sick Children at Brighton, to witness the presentation to Dr. R. P. B. Taaffe, one of the Physicians, of a testimonial marking the appreciation of that gentleman's services on behalf of the Hospital, of which he is also one of the founders. The testimonial, which took the form of a very handsome watch and chain with a suitable inscription and a cheque for £220, was presented to the recipient by the Mayor of Brighton.

MEDICAL CONGRESS AT SEVILLE.—A Medical Congress is to be held at Seville from April 10 to 15, 1882, inclusively. The Spanish, Latin, or French languages must be employed.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 31, 1881.

BIRTHS.

Births of Boys, 1198; Girls, 1183; Total, 2383.
Corrected weekly average in the 10 years 1871-80, 2238·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	1013	1066	2079
Weekly average of the ten years 1871-80, } corrected to increased population ... }	940·2	954·0	1894·2
Deaths of people aged 80 and upwards ...	...	...	78

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West	668993	...	14	3	3	15	...	7	1	3
North	995677	3	13	3	6	20	1	7	...	4
Central	281793	...	...	3	4	8	...	1	...	1
East	692530	2	6	3	2	41	...	3	...	1
South	1265578	27	28	21	3	40	1	7	...	1
Total	3814571	32	61	43	18	124	2	25	1	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	30·139 in.
Mean temperature ... ..	...	...	...	...	...	41·4°
Highest point of thermometer ... ..	...	...	...	...	...	45·8°
Lowest point of thermometer ... ..	...	...	...	...	...	27·5°
Mean dew-point temperature ... ..	...	...	...	...	...	38·7°
General direction of wind ... ..	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0·02 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the
Week ending Saturday, Dec. 31, in the following large Towns:—

Cities and boroughs (Municipal bound- aries except for London.)	Estimated Population to middle of the year 1881.*	Persons to an Acre. (1881.)	Births Registered during the week ending Dec. 31.	Deaths Registered during the week ending Dec. 31.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London	3829751	50·8	2383	2079	45·8	27·5	41·4	5·22	0·02	0·05
Brighton	107934	45·9	70	45	47·6	33·6	42·7	5·95	0·01	0·03
Portsmouth	128335	28·6	82	70	...	...	...	...	...	...
Norwich	88038	11·8	43	30	...	...	...	...	...	...
Plymouth	75262	54·0	33	29	52·2	37·9	46·3	7·95	0·09	0·23
Bristol	207140	46·5	106	67	...	...	...	...	...	...
Wolverhampton	75934	22·4	742	38	47·8	31·1	39·4	4·11	0·10	0·25
Birmingham	402296	47·9	260	195	...	...	...	...	...	...
Leicester	123120	38·5	69	71	...	...	...	...	...	...
Nottingham	188035	18·9	149	116	47·8	31·0	40·3	4·61	0·19	0·49
Liverpool	553988	106·3	341	339	54·2	31·3	42·9	6·06	0·11	0·28
Manchester	341269	79·5	202	195	...	...	...	...	...	...
Salford	177760	34·4	115	93	...	...	...	...	...	...
Oldham	112176	24·0	72	59	...	...	...	...	...	...
Bradford	184037	25·5	106	93	49·5	33·9	43·4	6·33	0·06	0·15
Leeds	310490	14·4	156	138	51·0	32·0	42·6	5·90	0·04	0·10
Sheffield	285621	14·5	203	121	54·0	32·0	41·2	5·11	0·08	0·20
Hull	155161	42·7	92	70	...	...	...	...	...	...
Sunderland	118753	42·2	74	50	56·0	32·0	44·7	7·06	0·02	0·05
Newcastle-on-Tyne	145675	27·1	94	78	...	...	...	...	...	...
Total of 20 large English Towns	7608775	38·0	4725	3976	56·0	27·5	42·5	5·84	0·07	0·18

* These figures are the numbers enumerated (but subject to revision) in April last, raised to the middle of 1881 by the addition of a quarter of a year's increase, calculated at the rate that prevailed between 1871 and 1881.

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·14 in. The highest reading was 30·44 in. at noon on Tuesday, and the lowest 29·68 in. by the end of the week.

NOTES, QUERIES, AND REPLIES:

He that questioneth much shall learn much.—Bacon.

The Jacksonian Prize.—The time for sending in essays for this prize expired on Saturday last, when five had been received.

A Teacher.—Mr. Henry Power, the chairman of the Board of Examiners in Anatomy and Physiology at the College of Surgeons, is the only member of the Board with a seat at the Council.

Escaped Lunatics and the Law.—Touching the escape of the lunatic Elliott from the County Lunatic Asylum at Barming Heath, Maidstone, effected by outside connivance under somewhat extraordinary circumstances, the Visiting Justices have resolved to petition the Lunacy Commissioners to promote an alteration of the Lunacy Laws, rendering it a penal offence to aid and abet the escape of an inmate of an asylum, and thus procure his release in any other than a legal way.

Devereux, Wills.—Every sanitary authority is legally empowered to accept donations of land, money, or other property to provide cemeteries. Undoubtedly, throughout the kingdom, the promotion of health and the prevention of disease are each year receiving wider and more intelligent interest, and the progress already made in reducing the amount of adulteration is substantial.

A Presentation.—At a numerously attended meeting, held at the Dial House, Twickenham, Miss Elizabeth Twining (the founder of St. John's Hospital, a most useful local institution) has just been presented with a beautiful album, containing portraits of the Queen, and of the principal nobility and gentry of the above town, by whom she is highly esteemed. The presentation was made by Lady Adeliza Manners, assisted by General Sir George Bouchier, K.C.B., and other distinguished residents. Miss Twining, some few months ago, was presented by the inhabitants generally with a valuable oil painting of herself, as a recognition of her munificence during a long period.

Life Underground.—It has been estimated that in Great Britain 378,151 persons carry on underground employment, working in galleries extending over at least 58,744 miles.

Local Option.—The California Legislature passed this law in 1874—"To permit the voters of every township or incorporated city to vote on the question of granting licences to sell intoxicating liquors." The Act led to an important decision by the Supreme Court, which held the statute to be unconstitutional. An election was held in a township, at which a majority of the votes were cast against the licence. The petitioner was afterwards convicted of an alleged violation of the law, and imprisoned. The Court was of opinion that the statute was void, because it did not become a law when it left the hands of the Legislature, but was to take effect only when it should be approved by a majority of the people of a township, and then only, in the township where thus approved.

Interfering with a Post-mortem Examination.—At Leeds, during the post mortem examination of the body of a man who had been fatally stabbed by another man, and against whom a verdict of "wilful murder" had been returned, the crowd burst into the room and put a stop to the proceedings. It took five constables to maintain order until the examination was concluded.

Street Dangers: the Catapult.—At Wolverhampton, in consequence of a lad firing a catapult off at a pony attached to a cart in the street, the startled animal ran away, and the cart, coming in collision with a ladder on which two workmen were repairing the roof of a house, both of them were precipitated into the street. One received such serious injury that he died soon after his admittance to the hospital.

Conserving Local Interests.—The Epsom Local Board of Health have taken into deliberate consideration, with the view of preserving the interests of the parish, the proposals of the London and South-Western Water Company, which include the sinking of a well at Epsom for the supply of the south-western portion of the metropolis with water; and they have resolved to oppose the Bill. The Rural Sanitary Authority which has jurisdiction over the parish of Carshalton will probably also oppose the measure, the effect of which, it is expected, will be to divert the supply of water from the district in question.

A Good Example.—It is stated that the Duke of Westminster, with the view, as a landlord, of inducing his tenants in London to consume their own smoke, has appointed a private Commission to investigate the matter; and if they report favourably, it will probably be made one of the conditions of a Westminster lease that the chimneys shall emit no smoke.

The Local Government Board Threatening.—After having repeatedly called the attention of the Board of Guardians for the Holborn Union to the urgent need of providing more indoor workhouse accommodation for the poor of the Union, the Local Government Board have now intimated to the Guardians their intention to put pressure upon them. They will withdraw the contribution from the Metropolitan Common Poor Fund which the Union at present receives, amounting to upwards of £30,000 per annum, unless adequate accommodation is provided for the poor of the Union.

O. S., Minorities.—The Registration Act and the Passengers Act require all captains or commanding officers of British vessels to transmit to the Registrar-General the particulars of all births and deaths that occur at sea amongst English subjects.

Practical Cookery.—Mr. Buckmaster, in a recent lecture on this subject, made some observations which deserve to be briefly noticed. He stated that the time to begin to teach girls cooking is before they leave school, when they are teachable, and amenable to discipline and kindly influences. Let this opportunity pass away, and it will never return. All efforts to teach girls after they have left school, or the wives of working-men, have been a failure, and he was more and more impressed with the necessity of beginning early. He would undertake to teach any girl of average intelligence, between ten and twelve years of age, in twenty-five practice lessons, all the cooking she would ever require in the house of a respectable, well-to-do working-man. There ought to be in girls' schools, school-kitchens and qualified teachers. The only school he knew in which this idea of practical cookery had been successfully carried out was the Freemasons' Girls' School, in which there were girls who could cook a dinner and place it on the table with more taste than is often seen in the dining-rooms of the middle classes. He did not think the ratepayers would object to the expenditure (which he estimated at the very reasonable annual sum of £1 per girl) if they saw the practical result in less waste, better cooking, improved health, more comfortable homes, and a better knowledge of food.

G., Hampstead.—Some half-dozen separate authorities deal with the cases of pauper lunatics: the Asylum Visitors, the Court of Quarter Sessions, the Board of Guardians, the Local Government Board, the Lunacy Commissioners, and the Home Office.

Prohibitive Liquor Laws, Kansas.—The enforcement of these Laws in Kansas is meeting with considerable difficulty. Governor St. John has had to issue a proclamation, in consequence of there existing in the cities of Atchison, Topoka, Wyandotte, Leaveworth, and Dodge City, a combination of persons who are defying the provisions of the law prohibiting the manufacture or sale of intoxicating liquor. Rewards are offered for the arrest and conviction of persons so violating the law, and also rewards for the conviction of public functionaries, from the county attorneys and city marshals to police-constables, for neglecting their duties as to the carrying out of the provisions of the Act.

Coroners' Inquests.—In 1880, 23,588 inquests were held, against 27,253 in the previous year, at an expense of £83,842 13s. 5d., being an average of £3 5s. 3d. each.

Water-Supply from the Thames.—The chemical experts, in their monthly reports sent in to the President of the Local Government Board, show that the majority of companies furnishing Thames water are supplying a purer and better aerated water than many of the waters drawn from sources in the country which have hitherto enjoyed the approval and confidence of the public.

Physic.—Ask *Medicus'* counsel ere medicine ye take,
And honour that man for necessity's sake.
Though thousands hate physic because of the cost,
Yet thousands it helpeth that else should be lost.

A Preventable Disease.—Dr. Harris, the Medical Inspector of the Board of Trade, has recently held inquiries, at Falmouth, into the causes of the outbreaks of scurvy on board two English ships, which had respectively twelve and nine cases of that disease on their arrival at that port. One man had died from the disease on the passage home from Rangoon. The result will be reported to the Board of Trade.

COMMUNICATIONS have been received from—

Dr. RICHARD NEALE, London; Dr. GORHAM, London; Mr. SHIRLEY MURPHY, London; Mr. ROBSON, Leeds; Mr. M. CARTEIOHE, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Mr. E. L. HUSSEY, Oxford; Dr. J. W. MOORE, Dublin; THE DIRECTOR OF THE ANTHROPOLOGICAL INSTITUTE, London; Mr. R. W. PARKER, London; Dr. FRÉDÉRIC EKLUND, Stockholm; THE CLERK TO THE WANDSWORTH BOARD OF WORKS, Wandsworth; MESSRS. FERRIS AND CO., Bristol; THE SECRETARY OF THE CLINICAL SOCIETY OF LONDON; Mr. RICKMAN J. GODLEE, London; Surgeon-General THOMAS LONGMORE, Netley; MESSRS. MARCUS WARD AND CO., London; THE SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Mr. H. NELSON HARDY, London; THE SANITARY COMMISSIONER, Punjab, India; Mr. STEVENS, London; Brigade-Surgeon LEONARD KIDD, London; THE SECRETARY OF THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, London; THE HONORARY SECRETARIES OF THE ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, London; Mr. W. WATSON CHEYNE, London; THE SECRETARY OF THE CLERICAL, MEDICAL, AND GENERAL LIFE ASSURANCE SOCIETY, London; Mr. J. CHATTO, London; THE SUB-LIBRARIAN OF THE OBSTETRICAL SOCIETY OF LONDON.

BOOKS, ETC., RECEIVED—

Year Book of Pharmacy, etc., 1881—Transactions of the International Medical Congress, vol. ii.—Reports upon Broadmoor Criminal Lunatic Asylum for the Year 1880—Annual Report on the Health of Salford for the Year 1880—Tripiet's Amputation of the Foot, by P. J. Hayes, F.R.C.S.—Annual Report of the Manhattan Eye and Ear Hospital, New York—Pharmacy, Materia Medica, and Therapeutics, by Dr. Whitla—The Micrographic Dictionary, parts 4, 5, 6, 7—Contribution à la Géographie Médicale, par le Dr. A. Frédéric Eklund—Braithwaite's Retrospective of Medicine—Scrofula, by Frederick Treves, F.R.C.S.—Report on the Sanitary Condition of the Wandsworth District for the Year 1880—Diseases of the Eye, by H. W. Williams, A.M., M.D.—Choléra Asiatique—Statistical Report of the Health of the Navy for the Year 1880—Accidental Ante-partum Hemorrhage, by Edward L. Partridge, A.M., M.D.—Verhandlungen der Physiologischen Gesellschaft.

PERIODICALS AND NEWSPAPERS RECEIVED—
Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Archives Générales de Médecine—National Anti-Compulsory Vaccination Reporter—Mornington Mirror—Medical Temperance Journal—Glasgow Medical Journal—Insurance Press—Monthly Homœopathic Review—Deutsche Medicinal-Zeitung—Food and Health—Australasian Medical Gazette—Indian Medical Gazette—Revue Mensuelle de Laryngologie et d'Otologie—Medical Record—Edinburgh Medical Journal—Liverpool Daily Post, January 2—Veterinarian—Journal of Science—Deutsche Medicinische Wochenschrift—Nottingham Daily Guardian, January 2—Nottingham Journal, December 27 and January 3—Physician and Surgeon—Weekblad—Morning Post, December 29—Birmingham Medical Review.

APPOINTMENTS FOR THE WEEK.

January 7. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Professor R. S. Ball, "How we learn Facts in Astronomy."

9. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ODONTOLOGICAL SOCIETY, 8 p.m. Annual General Meeting. President's Valedictory Address. Abstract of Paper by Mr. Dunn, "On Diseases of the Teeth." Casual Communication by Mr. Sewill.

MEDICAL SOCIETY OF LONDON, 8½ p.m. The Lettsomian Lectures, by Mr. Hutchinson Royes Bell, "On Diseases of the Testicles and their Coverings." Lecture 1.

10. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ANTHROPOLOGICAL INSTITUTE, 8 p.m. Major-General Pitt-Rivers, F.R.S. (President), "On the Entrenchments of the Yorkshire Wolds, and Excavations in the Earthwork called Danes' Dyke at Flamborough." Mr. J. R. Mortimer, "On the Discovery of Ancient Dwellings on the Yorkshire Wolds."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. Charles Creighton, "On three Cases of Tumour arising from Skin-glands in the Dog, showing the Connexion between Disorders of the Secreting Structure and Functions, and Cancerous Invasion of the Connective Tissue." Mr. T. M. Girdlestone, "On the Surgical Uses of Kangaroo Tendons."

11. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Midlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

HUNTERIAN SOCIETY (London Institution) (Council Meeting, 7½), 8 p.m. Dr. Pye-Smith, "On the Pathological Significance of Pus in the Urine."

OBSTETRICAL SOCIETY, 8 p.m. Specimens will be shown. Adjourned discussion on Dr. Godson's Paper "On Spasmodic Dysmenorrhœa and Sterility, and its Treatment by Graduated Metallic Bougies." Dr. Playfair, "Notes on Trachelo Raphé, or Emmet's Operation."

12. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

OPHTHALMOLOGICAL SOCIETY, 8½ p.m. Dr. Stephen Mackenzie, "On a Case of Acute Vascular Disease with Retinal Hæmorrhages." Mr. Jas. E. Adams, (1) "On a Case of Epithelioma of Cornea," with Microscopical Specimens; (2) "On a Case of an Exceptional Degree of Spasm of Accommodation." Mr. G. E. Wherry, (1) "On a Case of Paralysis of Fifth and Facial Nerves with Corneal Opacity in an Infant"; (2) "On a Case of Chance on the Palpebral Conjunctiva." Mr. McHardy, (1) "On an Improved Form of Stevens' Registering Perimeter"; (2) "On a Specimen of Black Cataract." Dr. Walter Edmunds, "On a Case of Suppurative Ophthalmitis after Ligature of Common Carotid." Mr. Lawford, (1) "On a Case of Optic Neuritis following Purpura"; (2) "On a Case of Unusual Gunshot Injury of the Eye." Mr. Nettleship, "Note on a Case of Diabetic Cataract." Living Specimens at 8 p.m.

13. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

CLINICAL SOCIETY, 8½ p.m. Annual Meeting. Election of Officers. Adjourned discussion on Cases of Myxœdema. Mr. W. H. Kesteven, "On a Case of Unilateral Xanthopsia." Cases of Renal Calculus removed by Operation, by (1) Mr. Beck, (2) Mr. Butlin, (3) Dr. Whiphram and Mr. Haward. Dr. S. Mackenzie will exhibit a Case of Lupus Psoriasis.

ORIGINAL LECTURES.

CLINICAL LECTURES
ON DISEASES OF THE ABDOMEN.

By FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P.,
Professor of Materia Medica and Therapeutics at University College,
Physician to University Hospital, and Professor of
Clinical Medicine, etc.

LECTURE VII.

THE SYMPTOMATOLOGY OF ABDOMINAL
DISEASES—*Continued.*

IN my last lecture I offered some general observations, which I considered of practical importance, relative to abdominal symptoms; and I now propose to take a comprehensive view of these symptoms, and to discuss their nature and modes of causation, in the hope that you may thus be prepared the more easily to understand them in their connexion with particular organs. In doing this I think it convenient to adopt a somewhat different general arrangement of the phenomena from that which I have previously given you.

I.—SUBJECTIVE SENSATIONS.

The sensations associated with the abdomen are so important, and they are so various in character, that they will be well worthy of special consideration at a future time. Meanwhile I only intend to glance at a few prominent facts bearing upon these sensations. They are of very common occurrence, and often require most careful investigation in determining their seat and nature. What was stated with reference to the frequent want of relationship between symptoms and diseases, applies with particular force to subjective feelings, and you need to be extremely cautious in your estimate of their significance in an individual case; indeed, some of the most severe forms of pain in the abdomen are due to conditions comparatively unimportant; while various sensations are often complained of when there is nothing really wrong. On the other hand, the mere absence of pain is utterly unreliable as indicating absence of serious disease. Let me impress upon you that whenever any abnormal feeling is referred to the abdomen, it deserves your attention and study, and you should never ignore it or treat it lightly. You will have to investigate it more or less thoroughly, and in different ways, according to circumstances. I would advise you to be more than usually cautious when there is any *localised* pain or tenderness. This should lead to very thorough *local* examination; and even if nothing can be thus detected, it is well to exercise care in the diagnosis that you make. The abdomen is a region in which we are particularly apt to suspect so-called hypochondriacal feelings, and I have known more than one case in which these supposed hypochondriacal sensations have proved to be due to aneurism and other grave diseases.

Now, the sensations which are connected with abdominal structures may be thus subdivided:—

1. Those which are of an actually painful nature, varying much in their situation, intensity, and characters, according to the structure in which they originate, and the precise condition upon which they depend. Among these sensations may be also included those of heat or burning, which are sometimes very significant; as well as soreness and tenderness of different degrees.

2. Sensations of mere discomfort, weight, fulness, tension, dragging, bearing-down, and others of an allied character. These are very common, depending on various conditions, being either general over the abdomen or localised, and either constant or variable, according to their cause.

3. Special sensations associated with particular organs, which are mainly exemplified by those connected with the alimentary canal—appetite, thirst, nausea, and defecation; and the feelings associated with micturition.

4. Sensations of movements within the abdomen, such as those often affecting the intestines; the movements associated with the gravid uterus; or those felt in rare cases of movable kidney, or accumulation of gall-stones in the gall-bladder. The sensation of pulsation may also be referred to under this head.

5. Curious and inexplicable feelings referred to the abdomen, met with in hysterical and hypochondriacal persons mainly.

6. Abnormal sensations felt in other parts of the body, but obviously dependent upon some abdominal morbid condition. As illustrations may be mentioned the shoulder-tip pain, believed to be associated with the liver; pain in the chest or between the shoulders, often accompanying gastric disorders and diseases; sensations about the anus, or at the end of the penis, in connexion with certain affections of the digestive organs and urinary apparatus respectively; headache or giddiness, due to various abdominal conditions; pain in the sacral region, from some uterine affection; and neuralgic pains in the legs, from pressure upon or irritation of nerves within the abdomen.

II.—OBJECTIVE ABDOMINAL SYMPTOMS.

The phenomena which are comprised within this group are not necessarily confined to the abdomen, but may be observed in other parts, or even over the whole body, as has been already instanced by jaundice. They are, however, recognised as being definitely connected with some abdominal structure. In order to understand the different ways in which they are produced, it will be requisite to consider the subject at some length, and I trust that this will materially simplify your study of the individual symptoms.

1. A large proportion of abdominal symptoms can be referred to some disorder affecting one or more *secretions* or *excretions*. Either or all of the five secretions which are poured into the alimentary canal—salivary, gastric, hepatic, pancreatic, intestinal—may be thus disordered, and many prominent clinical phenomena are caused in this way. The urine is also affected in numerous instances. The disorders to which these fluids are liable have regard to—(a) their quantity, which may be excessive, deficient, or unequal to the work which they have to perform; (b) their quality and composition, which are often abnormal when the secretion is first formed, or become so from admixture with mucus, morbid products, or, in the case of the alimentary canal, with fluids taken into the stomach; (c) their escape or discharge. A secretion may be prevented from escaping altogether, or partially, as frequently happens in the case of the bile, owing to some obstruction of the bile-duct; or it is discharged in some unusual direction, which may be exemplified by what occurs in salivary, biliary, and various urinary fistulæ.

The ways in which these disorders affecting secretions and excretions produce abdominal symptoms are as follows:—First, they are to be regarded as mere liquids, excess or deficiency of which may cause disturbances; this being one element, for instance, in originating certain forms of constipation and diarrhoea. Secondly, both by their quantity and quality they may materially influence or excite actions, as not uncommonly happens in the case of the alimentary canal; while the changes in these respects affecting the urine are very liable to affect the act of micturition. Thirdly, if secretions are deficient in quantity, unhealthy in quality when first formed, impaired from admixture with other fluids, or prevented from reaching their proper destination, their physiological functions are not duly performed, and hence arise numerous and varied symptoms associated with the digestive organs. Were it not that the secretions probably make up to a considerable extent for each other's deficiencies, they would be even more common than they are. You must call to mind from your physiological knowledge what the functions of the several secretions are, and you will then understand how errors affecting them can originate symptoms. The food, for example, instead of being properly digested, becomes decomposed or fermented, and thus various phenomena arise. Fourthly, it has already been pointed out that secretions and excretions, by their irritating quality, or by being retained or passing in wrong directions, are apt to cause secondary symptoms, or even more or less serious organic lesions, and it will suffice just to notice this point in the present connexion. Finally, interference with special secretions produces such distinct phenomena as jaundice and its accompaniments, in the case of the bile; dropsy or uræmia, in the case of the urine.

2. Another important group of abdominal symptoms are associated with the *actions* of certain organs. This has been incidentally alluded to under the preceding heading, but the disturbances coming under this category are of far wider

significance. The hollow viscera with muscular walls have physiological actions, which may become more or less impaired, sluggish, and ineffectual, or actually paralysed; or, on the other hand, they may be unduly excited and excessive. These disorders often cause evident symptoms in connexion with the alimentary canal and urinary bladder, by affecting the movements of the stomach or intestinal canal, or the act of micturition. The actions may also become entirely abnormal and irregular in character, as is exemplified in vomiting, and in the effects of spasmodic movements involving the muscular walls of the viscera.

3. Discharges of *blood* are of not uncommon occurrence as symptoms of abdominal diseases. They take place either from the stomach—*hæmatemesis*; from the bowels—*melæna*; from the urinary organs—*hæmaturia*; or from the female genital organs, being then a disorder affecting the frequency or the quantity of the menstrual flow. On the other hand, as regards menstruation, the error is frequently in the opposite direction, the discharge being absent, infrequent, or deficient.

4. The escape or discharge of *morbid materials* or *products* constitutes another group of symptoms, often of considerable moment, in abdominal affections. In the first place, pus or other fluids might even make their way externally through the walls of the abdomen, or in some other direction. From the stomach are often expelled, by vomiting and in other ways, mucus and gastric juice; gases or fluids derived from decomposition or fermentation of food; materials taken into the stomach, such as undigested articles of diet or poisons; bile; and other things. Abnormal elements are also frequently found in the stools. In the urine, mucus, pus, albumen, casts, gravel, or calculi may appear. Some kind of discharge is a frequent symptom in connexion with the female generative organs. Such things as animal or vegetable parasites, worms, or fragments of cancerous growths are occasionally met with in discharges from abdominal organs. These examples will suffice for the illustration of the point now under consideration.

5. Interference with certain *special circulations* gives rise to prominent symptoms in the abdomen, in whatever way this is produced. These are the portal and the renal circulations. The former is particularly important, and often originates very obvious phenomena, which will be pointed out in a future lecture.

6. A considerable number and variety of symptoms may be produced by some *mechanical* or *physical* cause. In the first place, all the organs and structures within the abdomen may be more or less interfered with, and their functions thus impeded, by some abnormal accumulation within its cavity, solid, liquid, or gaseous, exercising general pressure in all directions. This is observed, for instance, in large accumulations of gas in the stomach or intestines; in ascites; in local collections of fluid; and in some cases of enlarged organs or tumours. Various conditions often cause local and direct pressure, affecting vessels, orifices, canals or tubes, or hollow organs, and thus originate symptoms by obstruction. Such obstruction is likewise produced by something blocking the interior of some of these channels; or by disease of the walls themselves, narrowing or encroaching upon the canals or orifices. Strangulation or torsion may also narrow or close certain passages. The structures most likely to be thus interfered with are the stomach, especially at its orifices, the intestines, the bile-duct, the ureters, the portal or renal veins, and the vena cava inferior or one of the iliac veins. The symptoms observed will vary accordingly, and cannot be discussed at present. It may be mentioned that pressure upon, or irritation of nerves in the abdomen, may cause obvious paralysis or spasmodic movements in the lower extremities. Further, the destructive effects of pressure must be borne in mind, and, in illustration of this, allusion may be made to the fact that occasionally the spinal column is opened, and symptoms connected with the spinal cord supervene. Also the phenomena associated with rupture and perforation of organs have to be borne in mind here.

7. The *tongue* frequently affords signs of peculiar importance in relation to abdominal affections, especially those of the alimentary canal, and therefore deserves to be particularly mentioned here.

8. How far symptoms can be definitely attributed to some disorder of a *peculiar function* of an organ in the abdomen is at present a matter of doubt, and I shall do no more than

allude to this point, illustrating it by the so-called "glycogenic" function of the liver.

III.—THORACIC SYMPTOMS.

The obvious symptoms connected with the chest which may be due to abdominal affections are referable to the lungs or heart, namely, dyspnoea, cough, expectoration, or disturbed cardiac action. They may be produced:—(1) Mechanically, by accumulations of gas, fluid, or solid, pushing up the diaphragm, and interfering with the thoracic structures. (2) By reflex nervous influence or sympathy. (3) By morbid conditions of the blood, as in uræmia. (4) As the result of actual lesions in the chest, in consequence of perforation of the diaphragm by some abdominal morbid condition. I cannot enter into details on these points at present, but what I have said will suffice for the outline of symptoms with which we are now engaged.

IV.—GENERAL SYMPTOMS.

These present considerable variety in character and degree in different abdominal complaints, but they are often of considerable moment. The very absence, however, of any phenomena belonging to this group may be of great significance in the diagnosis of several abdominal diseases. On the other hand, affections of certain organs and structures within the abdomen are mainly revealed by what might be regarded as general symptoms, as in the case of the spleen, and in Addison's disease. Moreover, you will remember that some symptoms having a local origin in the abdomen may become more or less general, especially jaundice and renal dropsy. In addition to these phenomena, however, you must be prepared to take into consideration several general symptoms and conditions in relation to abdominal diseases. It will suffice to mention the most important of these, namely, pyrexia or fever; the typhoid condition; the septicæmic or pyæmic state; collapse; wasting and anæmia; mere debility and malaise, with nervous depression and other allied symptoms; and signs of a peculiar diathesis or cachexia, such as the cancerous or tubercular.

HYPODERMIC INJECTION OF SUBLIMATE IN SYPHILIS.—

Dr. Martineau has published the results of treating a large number of cases of syphilis hypodermically by the following mixture:—Powdered peptone, ammon. chloride, aa 9 grammes, hydrarg. bichloride 6 grammes; dissolved in glycerine 72 grammes and water 24 grammes. A Pravaz syringe will hold ten milligrammes, or one-fifth of a grain of the bichloride. The dose employed varies from one-twenty-fifth to one-fifth of a grain; and 372 patients were treated by 3838 injections, and no abscess or slough ever resulted. No salivation is induced by this method, although very large doses are sometimes used. The rapidity of the effects is said to be marvellous.—*New York Med. Record*, December 24.

FILTERING THE AIR IN INFECTIOUS DISEASES.—Dr. Malcolm McLean states that for the last ten years (during which he has treated about fifty patients) he has adopted a plan for preventing the spread of infectious disease in households, which he has found very efficacious. It consists in *filtering the atmosphere* which surrounds the patient through a carbolised, or otherwise disinfected, sheet of muslin, which is closely tacked over the door-frames of the room. "I close all unnecessary doorways by tacking the sheet *all about* the frame—bottom, top, and sides. The one door which is needed for ingress and egress I protect by tacking a similar sheet across the top, down the whole side of the hinge side of the doorway, and down the lock side as far as within five feet of the floor. This filtering-sheet is made long enough to hang closely to the frame and fall in folds upon the floor, where it is not tacked. By keeping it sprinkled with a solution of carbolic acid (such as Squibb's 2 per cent. solution) or other reliable disinfectant, all, or nearly all, of the air of the infected room is filtered through a tissue which seems to destroy the infection in its passage. Moreover, the moral effect of the procedure is good, would-be intruders being warned that there is something within to be avoided; and by their lessened numbers the risk of infection is diminished. No matters should be removed from the room without previous disinfection. The simplest way to sprinkle the sheet is to pour the solution into a flat dish, and dipping a hair-brush in it, to throw the liquid over the filter."—*New York Med. Record*, December 24.

ORIGINAL COMMUNICATIONS.

PARANGI DISEASE OF CEYLON, ALLIED TO YAWS.

By GAVIN MILROY, F.R.C.P.

THE history of our knowledge of this Oriental cachexy affords a curious page in the recent nosographical literature of this country. The disease was first mentioned by that excellent observer, Henry Marshall, Surgeon to the Forces, in his "Notes on the Medical Topography of Ceylon," published in 1821. It was next noticed in a short article in the work, entitled, "On certain Endemic Skin Diseases in India and Hot Climates generally," 1876, by the late Tilbury Fox, whose loss to dermatological science is universally lamented. In that article it was remarked—"Hitherto, as far as I know, this form of indigenous cachexy has been only recognised and described in Ceylon; but I strongly suspect that the parangi disease, or something very much akin to it, will be found to exist in many other parts of our Indian Empire, as well as of the East generally. It certainly bears resemblance to some endemic forms of cachectic disease in the western hemisphere."

Since this was written, in 1874, the investigation of the malady has happily been undertaken by the present Surgeon-General of the Colony (Mr. Kynsey), and a flood of light has by his labours been thrown on an obscure and perplexing subject, the true knowledge of which promises to be not only of great practical benefit to the island, but also of no small advantage to general nosological science. His Report on the Parangi Disease of Ceylon, (a) printed in the spring of the present year, is one of the most valuable official documents which I have ever met with, and which, it is to be hoped, will by the Home Government be widely circulated in all our colonies, and also in many districts of our Indian possessions.

And first, respecting the vernacular name of the malady. "The term," says Mr. Kynsey, "is a corruption of farangi; the Singalese language having no 'f,' 'p' is used instead. The Portuguese, who were the first foreigners who settled in the island, were known and are still spoken of as Feringees. The parangi disease simply means the disease of foreigners or strangers, and indicates the importation of certainly one disease, if not more, about the time the Portuguese took possession of Ceylon." In Ribeyro's History (b) the disease is mentioned thus—"The Neapolitan disease, which the natives call *Parangilede*, or Portuguese sickness, since the Portuguese first introduced it into the country, is not easily cured." There is little doubt the word was restricted to syphilis, which was first introduced into Asia in the sixteenth century, soon after its epidemic-like outbreak in Italy, when the army of Charles VIII. was besieging Naples.

Previous to the sixteenth century, syphilis was, I believe, unknown in India. The old Hindu writers described various maladies of the genital organs, but they were unacquainted with venereal disease, and there is no name for it in the Sanskrit language. In modern Sanskrit works it is called *Faringa Roga*, or Portuguese disease.

Marshall has described with his accustomed accuracy the cases which he examined; all of them were obviously of some standing. In several of them the cuticular eruption resembled the "tubercular eruption of syphilitic appearance" described by Bateman in vol. v. of the *Medico-Chirurgical Transactions*:—"The eruption was sometimes remarkably protuberant. Mostly, the protuberances were circular, from a quarter to a third of an inch in diameter, smooth, and in general they were flattened on the top. Afterwards, the cuticle covering the protuberances burst, and a glairy fluid oozed from the ruptured spot, which, by drying, formed an elevated grey-coloured scab. Some of the large scabs covered spongy granular excrescences."

Neither Marshall, nor any other European professional man subsequently, seems to have seen the disease in its

primary stage and its progressive development, until Mr. Kynsey took the subject in hand, and, with the aid of several resident medical men, investigated its natural history *ab initio*. In describing the *symptoms*, he quotes largely from the accurate report of Mr. Garvin, M.B., one of his correspondents, who, after noticing the brief pyrexia which often precedes the eruption, remarks:—

"In all forms the eruption first appears as papules, bearing a striking resemblance to *acne* or *lichen*. Certain changes then ensue, and upon these changes the varieties depend. In the mildest form the papule gradually acquires a yellow tinge, sinks to the level of the surrounding skin and while extending in one direction, generally heals at the opposite; this latter process being indicated by a slight depression and pigmentation of the skin. In this variety, which may be designated *lupoid*, in reference to its peculiar mode of extension and healing, there is no abrasion or loss of substance of the cuticle; but, upon the eruption healing, slight desquamation occurs, and the restitution of the part to health is unattended by any discharge or exudation. In the two next varieties the changes which ensue are peculiar and striking. The papule, which was no bigger than a pin's head, increases rapidly in size till it becomes as large as a pea, or larger. It stands prominently out of the skin, and its apex begins to become rough from desquamation of the epithelium. Then a sort of gluey matter exudes, and binds the exfoliated epidermal scales together, the papule shrinks and acquires a brownish-yellow hue, and a crack or fissure occurs where the sound skin joins it. The eruption is now perfect, and possesses a great resemblance to *rupia*; only the crust is less conical, cockle-shaped, and stratified. To this form of the eruption the term *rupial* may be applied."

... "When the peculiar crust falls, the sore underneath is, as a rule, exceedingly clean and healthy, the granulations standing out individually, and it appears like a ripe raspberry, or, when magnified, like the edible portion of a pomegranate."

The disease when neglected and mistreated lapses into the fourth stage of grave constitutional cachexia, described in the following words:—

"When the disease passes on to this stage, the eruptions break down, the subjacent ulcers become unhealthy, spread rapidly, destroying the skin to great depths, the discharge becomes profuse, the pain great, the desire for food is abolished, emaciation ensues, and the general health of the patient suffers so much that he is no longer proof against nor able to combat ordinary inflammatory diseases: an attack of one is generally the last event of his life. When the patient survives this stage and the ulcers heal, the most horrible distortions and deformities ensue from the contraction of the cicatrices, and render him a misery to himself. All these, and the various diseases of the bones, etc., may be correctly ascribed to the abuse of a remedy which in skilful hands contributes to the cure of the disease—mercury."

No one can fail to recognise the true frambœsoid characters of the malady here described.

On the important subject, in regard to the natural history of parangi, of *contagion*, Mr. Kynsey writes thus:—

"The questions of heredity and the contagious or non-contagious nature of the disease, may be examined together. Opinions are divided on the first of these questions, but they seem to point more in the negative than in the positive direction. No cases are recorded of the disease being developed congenitally, though several records allude to children shortly after birth developing the disease from contagion. Much depends on the signification attached to the word 'hereditary.' There can be little doubt that the offspring of those afflicted develop the disease most frequently; but this is due to the persistence among them of those causes which originally contributed to the outbreak of the malady, and to the enhanced risk of contagion. The offspring of the afflicted cannot be said to be necessarily possessed of weakly or vulnerable systems, for recorded cases are against this view. It may, in short, be stated that the disease is not hereditary."

"With regard to its contagious nature, little doubt remains. In fact, the *de novo* origin of cases is considered by many exceedingly problematical, owing to the multifarious ways in which contact may be brought about, and the inevitable result of such contact, be it ever so slight."

"Against the view of the contagious nature of the disease, it may be urged that no cases have arisen from association

(a) Report on the "Parangi Disease" of Ceylon, prepared by W. R. Kynsey, M.K.Q.C.P.I., L.R.C.S.I., Principal Civil Medical Officer and Inspector-General of Hospitals, Ceylon. Ordered by his Excellency the Governor to be printed. Folio. Colombo, 1881.

(b) "History of Ceylon," presented to the King of Portugal, 1685. Translated by Geo. Lee.

with the afflicted in the wards of a hospital, or of the propagation of the disease to dressers and attendants. This is easily explained, when we view the surroundings of a hospital as contrasted with those of a hotbed of the disease."

These statements very nearly accord, it will be observed, with the conclusions respecting the contagiousness of *frambæsia* now pretty generally received. In considering what seemed to me the extreme opinions on the subject held by Dr. Nicholls, of Dominica, I remarked—"Surely he has misinterpreted and mistaken my views as to what part contagion may play in the origination or spread of yaws. Nowhere have I denied or rejected its possible operation, nor have I propounded any theory of non-contagion. I have only stated—*first*, that the disease does not uniformly, or on all occasions, exhibit any very marked or decided contagious property; and *secondly*, that the idea of contagion being the sole factor in the causation of the disease is still very problematical, or, in other words, is 'an unverified hypothesis.' Is it not a too frequently besetting sin of our profession, in dealing with the confessedly difficult subject of the etiology of disease, the tendency to imagine that the genesis and development of many maladies must be due to the operation of one single or individual cause?" (c)

The latest document which I have received from the West Indies, relating to the subject, is the Report by Dr. Crane, Surgeon-General of Trinidad, of the hospitals in that island for the half-year ending December 31, 1880. Patients afflicted with the disease are admitted without reserve into the wards, and mingle with the other inmates.

"An unusually large number of yaws cases has been treated in both hospitals. Throughout the year, diligent inquiry has been made respecting yaws, and efforts made to bring the cases found under treatment, either by the district medical officers, or by admission into the General Hospital. The disease has not been found to prevail to any considerable extent, and the cases discovered have been found very amenable to treatment."

We come now to the consideration of the *nature and diagnosis of parangi*, bearing in mind that under this term several diseases have hitherto been described, and the diversity of opinions expressed as to the nature of the malady may thus be explained. The diseases which parangi resembles are *syphilis* and its varied manifestations, *lupus*, *leprosy*, and *frambæsia*. Hitherto, until quite recent years, the prevalent opinion, not only among the general public, but also among medical men, was that the disease was of a syphiloid origin and nature; but Mr. Kynsey now informs us that—

"There seems to be very little ground for supposing parangi to be syphilis or its manifestations. The resemblance is restricted to the peculiar eruption, the occasional disorders to which the bones are subject and to the curative property of mercury in both diseases. If a careful inquiry be made into the history of the case, there is a total absence of any reference to a primary infecting sore. When a sore does exist on the penis, it is generally secondary to the evolution of the eruption. The eruption is frequently found on children and youths perfectly innocent of sexual diseases or gratification. The eruption, though resembling rupia, differs from it in several respects. It is not a pustular eruption; the scab is not reproduced once it is removed; it is less stratified and cone-shaped, and the subjacent sore is, as a rule, healthy.

"Instances occur where the children and parents are at the same stage of the parangi disease, and where a child communicates the disease to the previously healthy father. In syphilis the case is different, and healthy parents never beget children who develop the disease shortly after birth.

"Again, in nearly all cases of parangi we miss the characteristics of transmitted syphilis. There is no history of frequent miscarriages, the children are never born with the disease, they are not, as a rule, unhealthy, nor do they develop signs peculiar to inherited syphilis; their teeth are not bad, nor do they exhibit the abnormal appearances pointed out by Hutchinson; the bodily development is not interfered with; there is no epiphyseal or glandular enlargement; and the eyesight is never affected. The parents frequently exhibit none of the later symptoms of syphilis. In parangi, in some cases, the bones suffer, and peculiar indolent ulcerations take place, but this has been allowed by the

staunchest supporter of the syphiloid nature of the disease (Dr. Loos) as frequently due to the abuse of mercury; and he states that he has not been able to find indications of syphilis in new-born infants."

The conclusion to which Dr. Kynsey comes is—"It may, therefore, be confidently asserted that parangi is not syphilis, and is in no way related to that disease."

After pointing out that it is only in the later stages of parangi that the ulcers acquire characters like those of *lupus*, "but are then really cases of lupus engrafted in the disease by the fearfully destructive results of promiscuous mercurialisation," and the marked distinguishing signs of true *leprosy*, Mr. Kynsey remarks that—

"*Frambæsia*, or yaws, is the disease to which parangi bears the most striking likeness. The history of both is identical, and the minor points of dissimilarity may be easily accounted for by ascribing to climate and surroundings generally some modifying influence. . . . The presence of affections of the bones and destructive ulcerations of parangi cannot be urged as points of difference, as these results are traceable to unskilful treatment, and do not probably possess any relationship to the disease itself."

As to the confessedly obscure and difficult subject, the *etiology* of the disease, the following extracts from the Report will be read with interest:—

"It is a circumstance worthy of consideration and investigation that the geographical distribution of the disease in this island is that of deficient water-supply and the use of artificial tanks for the storage of water. This is no mere coincidence. It seems to be of considerable etiological significance, as pointing to the water as faulty and probably causative. . . . Climatic influences are also not without import in the causation of the disorder. It has been noted that the setting-in of the wet weather is generally the prelude to a fresh outburst, and to an aggravation of the pre-existing cases. Whether this be connected with disturbance of the tank water during the downpour, the setting free of malarial poisons, or both, has not been settled. As somewhat to the point it may be mentioned that the increase of malarial fever is also contemporaneous with the advent of wet weather."

The domestic condition of the people appears to be deplorably bad. "The habitations of the afflicted are such as are adapted to the fostering of disease, and perhaps of generating it. The salutary influences of light and air are not heeded. The habits and customs of the people are filthy in the extreme, and personal cleanliness is seldom attended to. The food is innutritious and deficient, especially in nitrogenous elements. The staple food is a grain cultivated largely, and known as *kurrakan*. (d) Rice is a luxury. Game and meat are very rarely used for food; and when meat is obtained it is generally cut in strips, dried, and eaten at variable intervals till the supply is exhausted."

The author then alludes to the early marriages of consanguinity, frequently when both parties are diseased, as having something to do with, "if not the production, at least the propagation of the malady"; and he closes his remarks on this subject with the general observation that—"In regard, then, to the etiology of the disease, it may be stated that several factors are in operation, and that the chief of these appear to be innutritious food and bad water, residence in ill-ventilated and ill-constructed buildings massed together in close proximity to each other, and other circumstances which contribute towards a debilitated state of the system in a pauperised and unclean people."

We come now to the important subject of *treatment*. In the early or inceptive stages of parangi no remedies will be so suitable as those which act upon the skin and increase the cutaneous circulation, as warm baths and the use of diaphoretics, or powders of sulphur and cream of tartar, together with the employment of warm clothing. "When the disease has passed into its third or eruptive stage, a material alteration is necessary in the treatment. At this stage the employment of mercury suggests itself. In the various nostrums used by the native doctors, mercury forms a prominent ingredient; but baneful effects traceable to its unskilful use ought to be a sufficient reason for discontinuing it, or using it only sparingly. Although in some of its forms it is a useful drug, it does not appear to be essential. It cannot be regarded as a specific for the dis-

ease; it probably acts as a powerful alterative eliminant. The best method of giving the drug is by fumigation or by external application, the process described by Lee being adopted in the first case, and the diluted citrine ointment rubbed into the eruptions in the latter. Should it be decided to give mercury by the mouth, the perchloride should be selected, and given in combination with the iodide of potrsium, the latter aiding the alterative action and the elimination of the mereury after it has had time for its operation. In every case care should be taken that ptyalism is not produced, and directly the gums commence to be affected it should be suspended. In cases marked by debility, the treatment should be supplemented by tonics, such as cod-liver oil and the syrup of iodide of iron. The occasional flying pains are best relieved by a large dose of the iodide combined with the bromide of potassium."

However useful medicinal treatment may be, no real or permanent cure can be expected unless judicious hygienic and sanitary means are employed at the same time. "The food should be of a light nutritious kind, and changed from time to time. As much of the food in districts where the disease is endemic is of a non-nitrogenous character, the diet should be rich in flesh-forming and fatty materials." But public measures for the improvement of the land are at the same time required.

"The system of irrigating the country," says Mr. Kynsey, "by restoring the ancient tanks is absolutely necessary, and the eradication of the disease can be effected only by the march of civilisation. Analogous instances we have in the disappearance of the Sibbens disease of Scotland, and of leprosy from most of the countries of Europe. That parangi is a disease due to innutritious food and destitution is beyond doubt. It finds a congenial soil among the indigent of the Vanni, a people remarkable for their ignorance of all matters relating to agriculture, for their apathy and helplessness. They rely solely upon slight efforts in cultivating the soil; the failure of a crop—a by no means infrequent occurrence—meaning destitution and its accompaniment, disease. The remedy is everything that will improve the material prosperity of the people and of the land they live in. The necessary measures must be enforced in no half-hearted manner, or by persons wanting in energy. Then gradually sanitation and the laws of health will come to receive due attention, and a civilised community in a prosperous locality will be the result."

In closing my observations on yaws ("Report on Leprosy and Yaws in the West Indies," page 63), I remarked that, judging from all that had come to my knowledge about the latter disease, I could not but regard it as one of the multiform group of maladies that may be associated under the generic designation of *mal de misère*—the outcome and offspring, very generally, of human wretchedness and suffering, induced by prolonged neglect of those sanitary and hygienic conditions necessary for healthy existence. The parangi disease of Ceylon seems to be another member of the family group of which it may be affirmed—

"Facies non omnibus una,
Nec diversa tamen."

P.S.—Since this article was written I have had an opportunity of examining the atlas of admirable coloured drawings, eighteen in number, which were prepared at the instance of Mr. Kynsey by a local artist, and under the sanction of the Governor of Ceylon, Sir James Longden, who, from his long experience in the West Indies, was enabled to appreciate the value of such pictorial illustrations, and to whose hospitality and kindness I was greatly indebted during my stay in Trinidad, of which island he was then the Governor. The atlas has been presented by the Secretary of State for the Colonies to the College of Physicians, and will thus become widely known to the profession. If similar drawings representing the external features of the West Indian disease in its various phases were obtained, the attention of medical men generally would be drawn to a subject of nosology which hitherto has attracted far too little consideration. G. M.

DIPLOMAS IN FRANCE.—The six Medical Faculties in France have conferred the following diplomas during the scolar year 1880-81:—The Faculty of Paris, 461; of Montpellier, 66; of Lyons, 44; of Nancy, 19; of Bordeaux, 18; and of Lille, 13—total, 621.—*Lyon Méd.*, January 1.

NATIONAL SPELING REFORM IN ITS RELATIONSHIP TO THE MEDICAL PROFESION.

WITH A SCHEME FOR ITS CONSIDERATION.

By Dr. GEORGE HARLEY, F.R.S.

As the four medical gentlemen who ventilated their views on the question of Speling Reform in the *Medical Times and Gazette* of November and December last are, apparently, not alone unaware of its importance in a Social, as well as in an International point of view, but equally unconscious that it has at the same time significant sanitary and practical medical bearings, I venture to ask you to allow me sufficient space in the journal to set them right on the subject. By showing them that they, as enlightened practitioners of medicine, ought not only to take an individual, but a special interest in the problem of the easiest and best mode of reforming our defective national orthography.

Before proceeding to do so, however, I will avail myself of the present opportunity of discharging a most pleasing duty. Namely, the tendering to you, Mr. Editor, my sincerest thanks for having so generously—and in the same enlightened spirit of literary liberality as actuated the editors of several other journals—permitted me to give a practical exposition of the first part of my Progressive Scheme of National Speling Reform. By printing my papers on Germ Diseases—now brought to a close—without encumbering their words with redundant, and consequently useles, Duplicated Consonants. Having now liquidated this debt of gratitude, I will endeavour to show that the question of reforming our orthography is a far more momentous one than the flipant tone of one of your corespondents' leters would fain make us believe. Seeing that he even goes so far as to hint that its discussion is only suited for the pages of a comic journal. It is with very diferent feelings that I, as a practising physician, view the mater. For, after having given considerable atention to its various aspects, I have arived at the conclusion, as stated in the pages of the *Lancet*, that beyond being a question of social, national, and personal convenience, and economy, it has a Medical side of no mean importance. From the fact that the inconsistencies of English speling not only entail, as Dr. Gladstone has computed, a two years' additional course of primary school education; but an amount of mental strain far beyond the capacity of the average run of human brains. And that too, not only while they are imature, but also at the most rapid period of their intelectual development. Leading in many eases to a condition of permanent mental weaknes, and in not a few to grave and incurable forms of brain-disease. Consequently it may be truthfully said that the mental wel-being of milions upon milions of children yet unborn must of necessity be materially influenced by the apathy or activity with which the question of National Speling Reform is handled in this the last quarter of the nineteenth century.

But even beyond its social and medical aspects, there is yet another of no trifling importance to us as British subjects. Which is, its International influences. Seeing that the ultimate destiny of al languages is coalescence. He who doubts it has only to cast his eyes around him, and it will become patent. For he wil notice that with the increase of personal intercourse which has within the last few years taken place in this country through the medium of railways and steamboats, a gradually increasing elimination of local provincialisms has taken place. And that the diferential patois of our peasantry is now gradually coalescing into one comon form of National tongue. And just as local dialects disapear, so do the weaker national languages gravitate towards, and at length become swallowed up by, the stronger. Thus it is we find Galic, Cimbric, Manx, and Erse gradually dying out, and English taking their place.

Therefore it canot for a moment be doubted that the language destined to form the groundwork of the International language of the future is not that which alone has the advantage of having at present the greatest number of speakers; but the one which combines with a wide distribution the important elements of being easy of acquirement and simplicity in its construction. For example, unwieldy Chinese, though spoken by more than four hundred milions

of people, could never by any possibility become a universal tongue. From its being so difficult to learn to speak, and even more difficult still to learn to write, and impossible to telegraph. Simplicity in construction, terseness in expression, and brevity in orthography, being the great elements in linguistic suxus. And as already the English language not only poseses most of these elements, but is at the same time the easiest learned of all civilised languages, it is not improbable that, if its orthography were improved by the removal of the most glaring of its inconsistencies, it would not fail to become the groundwork, at least, of the Universal Language of the future. This might almost already, indeed, be said to be a demonstrable fact; for it is only a few years since the Japanese Government, while reforming its social system, took into consideration the advantages likely to accrue to it from the adoption of English as its national language. And it was chiefly from discovering the defects in its orthographical organisation that the scheme was abandoned.

That English may yet become the Universal Language of the future cannot possibly be regarded by any reflecting mind as a Utopian idea. For a glance at the part now being played by the English language in North America, Australia, New Zealand, South America, and on the seaboard of Africa and Asia, plainly points to its possible future destiny, if it be only brought within the reach of easy acquirement by foreign races. On the contrary, however, as history invariably repeats itself, if English orthography be allowed to remain in its present imperfect state, I venture to predict that its ultimate fate will not fail to be one whit less ignoble than that of ancient Roman Latin. Which, in consequence of its imperfections, has been gradually and quietly shunted from the path of progress, till at length it has, as a spoken language, become a homeless and homeless wanderer on the face of the earth. Even Rome itself, its birthplace and its nursery, has long since repudiated its services, and accepted in its stead those of its less defective and more manageable scion, Italian. And all this has happened in spite of the strenuous endeavours made during the middle ages by the monks and other learned men to make the language of ancient Rome the universally written and spoken language of educated Europe. Had, indeed, the Latin of the Romans of 2000 years ago been a less imperfect language than it was, I should not now be writing this in English. For it is more than probable that the language of ancient Rome would be at this very moment the vernacular of every country in Europe—and what might have been the career in modern Europe of the language of the conquering legions of ancient Rome, had it but been simplified to meet the requirements of the times, I desire to foreshadow as the future career of the improved language of Great Britain. But as was the fate of Latin in the past, so I venture to predict must of necessity be the fate of English in the future, if its house be not put in order and adapted to the requirements of the times. For education will not much longer submit to the fetters of its imperfections; and, unless it speedily yields itself to the wants of the age, modern spoken English, like ancient spoken Latin, will, in the course of time, find that the place that once knew it will know it no more.

Having now, I trust, said enough to convince your correspondents that the question of the Reform of our National Spelling is of a somewhat higher order than they imagine. And at the same time, I hope, sufficient to prove to my medical brethren in general that they, as the recognised public conservators of the Nation's brain-power—quite as much as of its physical strength and bodily health—not only ought to take a general, but a special, and even an individual, greater interest in the simplification of our orthography than the members of any other professional section of the community. I feel sure you will pardon me if I ask permission to still further trespass on your kindness, and allow me to give a brief sketch of the Progressive Scheme of National Spelling Reform which I laid before our late Prime Minister (Lord Beaconsfield). And further, as in finishing this article I shall have accomplished the main object I had in view in entering as a volunteer the field of Spelling Reform. Which was to induce my medical brethren to assist in the progress of the good work. I shall quit the field as an active worker, and leave the task of fighting its battle to those who have more leisure to devote to it. I shall be happy to furnish any of your readers with copies of my little book and pamphlet on the subject, on receiving their addresses. For, after seeing what I have said on

the matter, perhaps some of them may be induced to take an active part, for a time at least, as I have done, in this important social movement. The benefits likely to accrue from which being beyond the possibility of pecuniary estimation.

My scheme of National Spelling Reform is founded on the fact that:—

The most salient orthographical blemishes in the language recognised by the thinking part of the educated class are:—

1. That the present system of spelling is a direct impediment to education in primary schools, by unnecessarily prolonging the mechanical drudgery of learning to read and write.

2. That it hampers the distribution of knowledge through the mechanical instrumentality of pen and press.

3. While from these two propositions it follows, as a natural corollary, that the defective system of English spelling is detrimental to the intellectual development of the nation.

My ultimate object being nothing more nor less than to facilitate the intellectual development of the people, I desire to find a ready means—

1. Of accelerating the acquirement of a knowledge of reading and writing the English language by children and illiterate adults.

2. Of facilitating the distribution of knowledge among all grades of persons in the community.

3. Well knowing that no absolutely perfect scheme of orthographical reform is practicable in the present state of society, I desire to attempt only to remove from the language the most objectionable of its inconsistencies; that is to say, those which are admitted by educated men to be not only direct impediments in the way of primary education, but obstructive agents in the spread of knowledge, as well as of its perpetuation through the instrumentality of physical agents, such as the pen and the press.

4. I desire that, in the introduction of any system of literary reform, great care should be taken to avoid as much as possible giving personal inconvenience to any member of the community.

5. I am anxious that the reform should not alone be a personal advantage to every man, woman, and child in the nation, but likewise a pecuniary benefit, individually and collectively, by diminishing time, labor, and material in the acquirement of education, in the spread of information, and in the perpetuation of knowledge.

6. I desire that the present system of literature should be changed as little as possible.

7. While being careful to facilitate the acquirement of education in primary schools, and to avoid causing inconvenience to the adult portion of the community, I wish that every word in the language, when possible, should be shortened: so as to entail a minimum expenditure of vital power in its vocal utterance, as well as of manual labor in its mechanical employment by pen and press.

Presuming that the readers of these pages are all prepared to admit the justice of these statements, and that they are also alive to the desirability of spelling reform, I shall at once proceed to show what is in my opinion the easiest, and therefore the best, plan of procedure for its attainment.

For the sake of public convenience, the scheme which I propose is divided into three distinct parts, which, at the option of each individual member of the community, may either be adopted and worked separately or conjointly. Neither part interferes either with the independent working of the other or with the present system of orthography. So that all three may with perfect impunity be made to proceed side by side, or even hand in hand, according to the views of the person adopting it.

The first part of the scheme simply proposes an extension of the natural law of English linguistic evolution: the total abolition of all the unnecessary duplicated consonants—*b's, c's, d's, f's, l's, m's, p's, s's, t's*, etc.—from every word in the language, except personal names, as I am illustrating by my present form of writing.

The second part of the scheme proposes, in like manner, a still further extension of the natural law of linguistic development, by the total abolition of all mute letters. Be they vowels or be they consonants. Which will induce a still further improvement in the shape of shortening, and thereby simplify the spelling of words.

But here I must remark, that with the elimination of vowels great caution is required. Even one of your critical correspondents, who might naturally, from his having

assumed the rôle of a Speling Reform censor, be expected to know something of the subject about which he so confidently expresses opinions, fell into the error of citing as good examples of linguistic abbreviation the writing of blod instead of blood, and schol instead of school. Apparently from not perceiving that he thus efaced the phonetic symbolism of vocalisation. What he intended to have writen, I suppose, was blod in harmony with bud and stud, and skool, in harmony with tool and fool. Duplicated vowels cannot be dealt with in the same way as duplicated consonants. From the simple fact that in most cases they are an essential index to pronunciation. Were they omitted, the signification of words would be in most cases entirely changed.

Thus—
 good would become god.
 been „ „ ben.
 boot „ „ bot.
 poop „ „ pop.
 beet „ „ bet.
 soon „ „ son.

Again, I make a further exception in favor of the retention of al duplicated leters in Personal Names, on the ground that, as every British subject has a legal right to cal himself by what name he wil, he has an equal right to spel his name in whatever maner suits his fancy, and no one has the slightest right to interfere with him.

These, then, are the first two portions of my proposed scheme, and I think that no one conversant with the speling history of the English language can possibly offer any reasonable objection to them. For, if he ever had an old book in his hand he must be aware that not only hosts of duplicated consonants, and of al sorts of mute leters, but even leters that were formerly not mute, have been by the hand of time eliminated from words. This very morning I saw in the renowned Evelyn'sleter to King Charles II. in 1661, complaining of the London coal-smoke nuisance, that he writes—"It sulleyes and furs everything." While we al know that Shakespeare wrote of a "mannes weak legges and goutty hammes." In fact, so great is the human desire for abbreviation, that not only are leters omitted from words, but the words themselves, after having been eliped down, are stil further abbreviated by being run together. Without the slightest attention being paid either to etymology or sense. Thus, "oak-corn" has become "acorn." The four words, "God be with you," have been condensed into two, "Good-bye." And sometimes even as many as six words have been condensed into one. Without a single dissentient voice being raised against it. "Top is up the other way" is now "topsy-turvy." Don't let anyone imagine that this is an obsolete proces. For quite the contrary. It is going on every day in our midst. Though many fail to perceive it. For example, one does not often now say that he is going by the omnibus, steamboat, or railway train. Al he says is, I am going by the 'bus, the boat, or rail. So, again, we do not trouble to put "Telegraph to me in reply," but only "Wire reply."

But who amongst us, may I ask, does not practise speling abbreviation every day? Do we not al write p. c. for per centum, and 4 o'clock instead of 4 of the clock post meridiem? Do we medical men in our note-books not indicate 112 pulsations of the heart, 20 respirations of the lungs, 99.5 degrees of temperature Fahrenheit, simply by P. 112, R. 20, T. 99.5° F.? Does the banker write Curent Account, Interest Deposit Account, Drafts at Sight, etc.? Not he! Al he does is to indicate them by leters of the alphabet, as C. A., I. D., and D. S. Do we not often receive leters from friends who put wh. for which, yr. for year, and V. T. Y. for very truly yours? In fact, no one takes more trouble or wastes more time than he can help. And this fact leads me to ask, if "I. O. U." is as good a bond as "I owe you," why should R and T and B and C not equally wel stand for are and tea and bee and see? We don't get confused with the employment of a, and I, or o, when used as solitary symbols of words, and surely habit would quite as soon familiarise us with the significations of r, t, b, c, and al the other leters of the alphabet which phonetically represent not only the whole but the corect pronunciation of a word.

During a driving tour, in pasing through a vilage in Gloucestershire, if I remember right, I observed, in grand gold leters above a harnes maker's door, the words "Alsop, Sadler." Which made me muter, "That's a man of sense." He has corectly defined his name and caling, and yet saved three leters. I must say, however, I was rather startled when going through the streets of Preston, to see a patient

last week, to find one shopkeeper indicating his name of Beavor, by three leters only, B V R, and another his of Kaye, with a single K over his shop door. This is certainly carying out my scheme of abbreviation to a leter.

Finally, after al the mute, and consequently absolutely useles, leters have been omitted from words, but litle more wil require to be done in order to render the remaining unimproved words phonetic symbols of pronunciation. For it wil then be a very simple mater to change such words as philosophy into filosofi, cough into kof, and enough into enuf. Thereby kiling two birds with onestone. Diminishing labor, and at the same time speling "fonetically." Why, may I ask, should an objection be raised to this comon-sense plan? Seeing that modern philological research has strangled the etymological Bugbear which perplexed our forefathers, by showing us that, with the exception of technical terms, true etymological English speling never had any existence. Except in imperfectly informed imaginations. The absurdities of which were truthfully foreshadowed by the witty Dean Swift when he said that he had as much right to say that crypt came from cry pit, girl from garula (talkative!), and ostler from oat stealer, as Johnson had to tel us that peacock was etymologically derived from peaked (tufted) cock!

The third and last part of my scheme therefore proposes the adoption of a system of *Rational Speling*. By which I mean the speling of words with the fewest posible number of leters capable of furnishing a corect index to the pronunciation of the word—the speling of al similar vocal sounds with exactly the same leters of the alphabet—and the total disuse of the employment of similar leters of the alphabet to denote *unlike* vocal sounds. Which of necessity makes the speling a false index to the pronunciation of the word.

These, then, are my ideas of how we can best diminish the mental strain on the imature intelect caused by the defective orthographical construction of our language. Reduce the period of school education. Facilitate the acquirement of our language by foreigners. Economise our labour, our materials, and our space in writing and printing. And thereby save our Brains, our Money, and our Time.

LONG INTERVAL IN THE BIRTH OF TWINS.—Dr. Baranski relates (*Wien. Med. Woch.*, 1881, No. 27) the case of a woman who was easily delivered of a not quite fully developed male child and its placenta, and who, finding herself going on well, recommenced her ordinary work as an agricultural labourer. While so engaged on the seventeenth day after the birth of her child, a fresh discharge of liquor amnii occurred, unaccompanied by pains. Dr. Baranski, called to her the next day, found an arm presenting, and delivered her of a well-developed, unmacerated child. The placenta followed spontaneously. This occurred, therefore, on the eighteenth day after the first delivery.

TANNIN IN NASAL POLYPUS.—M. Stanislas Martin states that in six cases he has known injections of officinal tannin, one part to ten of distilled water, morning and evening, prove very efficacious in mucous nasal polypi. If it be continued for some time a tannate will be formed, which will become detached, restoring respiration by the nostrils.—*Bull. de Thérap.*, December 15.

ALVEOLAR PERIOSTITIS OF THE JAWS IN DIABETES.—A memoir upon this subject, read at the Académie de Médecine by M. Magitot, is terminated by these conclusions:—1. The examination of the mouth furnishes a constant sign in the diagnosis of diabetes; 2. This sign consists in an osteo-periostitis of the edge of the alveoli; 3. It appears at the commencement of the disease, and persists during its entire duration, acquiring in certain cases the importance of a revealing sign; 4. This alveolar lesion is characterised as an initial sign of diabetes by a period of deviation of the teeth, and corresponds to the phase of the actual existence of the disease by these becoming loosened, and by alveolar catarrh, while a falling-out of the teeth occurs at the most advanced period of the diabetes. If the diabetes still continues after this last occurrence, the alveoli, deprived of their teeth, may become the seat of a bony absorption, consecutive or not to partial gangrene of the gums. This last sign is critical, preceding only by a short time the fatal termination of the disease.—*Gaz. des Hop.*, December 29.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

THE MANCHESTER ROYAL INFIRMARY.

CASES OF CEREBELLAR DISEASE.

(Under the care of Dr. DRESCHFELD.)

(Continued from page 7.)

Case 4.—Headache, Vertigo, Staggering, Vomiting, Epileptic Convulsions, Double Optic Neuritis—Rapid Improvement of all the Symptoms under an Anti-Syphilitic Treatment.

THIS case resembles the third case in all its symptoms; there was, however, a distinct syphilitic history. Briefly stated, the case is as follows:—

H. H., aged fifty-one, came to the out-patient room of the Manchester Infirmary in the beginning of June, 1879, suffering from marked symptoms of cerebellar disease. He stated that he contracted syphilis when eighteen years old, and suffered from symptoms of secondary syphilis for about two years, but has remained free from any further syphilitic troubles since: twelve years ago he had small-pox, which laid him up for several weeks; six years ago he had an attack of typhoid fever, from which he also recovered perfectly; twelve months ago he commenced to suffer from pains in his head and body, which became much exaggerated at night, and in spite of medical treatment the pains have persisted more or less ever since. He commenced to vomit, and vomited often without feeling nausea; he also began to feel giddy, and people noticed his staggering. Three months ago he had a severe epileptic fit, and since then was obliged to give up his work—that of a porter. The staggering has within the last two months become so bad that he could not walk without assistance; the vomiting also occurred oftener within the time named; he had two more epileptic fits, and he also noticed his eyesight and his hearing to become bad.

The patient was found on admission to be anæmic and emaciated. There were no visible syphilitic nodes or cicatrices on his body. The pupils were unequal, and there were synechiæ on both. There was marked optic neuritis; the disc hazy, the arteries small and hidden. The hearing was bad, especially in the right ear. The examination of the organs of chest and abdomen showed nothing abnormal. The appetite was bad; tongue clean; bowels constipated; the urine free from either sugar or albumen. There was no paralysis or sensory disturbance in either the upper or lower extremities; and the superficial and deep reflexes were normal. The patient, however, could not walk by himself, owing to the excessive giddiness and staggering; when trying to walk he staggered sometimes to the right, sometimes to the left side.

The diagnosis made at the time was: Cerebellar tumour, probably of syphilitic nature.

For a week the man was treated as an out-patient with mercury and large doses of iodide of potassium.

On June 17, 1879, Dr. Morgan admitted him as an in-patient, his symptoms being then the same as on his first admission into the out-patients' room, except that the vision had become much worse; and Dr. Little (Ophthalmic Surgeon to the Infirmary) noticed some slight retinal hæmorrhages. The patient was subjected by Dr. Morgan to an energetic anti-syphilitic treatment (inunction and large doses of iodide of potassium), with very satisfactory results. The vomiting ceased; the staggering very much diminished; and the optic neuritis gradually receded, so that after a six weeks' stay in the hospital the patient was sent to the convalescent hospital, where he came again under my observation. I found him looking very much better; he was able to walk by himself, and staggered only when suddenly turning round, or when walking with his eyes shut. He still complained of slight headache and of deafness; his eyesight had very much improved, the optic neuritis having almost completely disappeared. The patient continued to take iodide of potassium along with some iron and quinine. He remained in Cheadle till the end of November, 1879. Since then he has been under my observation as an out-patient

several times. He has followed his work with occasional intermissions since January, 1880. He suffers at times from headache and giddiness, and his hearing has not much improved. There is, however, no visible trace of any optic neuritis, and he has had no return of either sickness or convulsions.

I saw the patient quite recently (November 25, 1881). He was then in the enjoyment of good health, though he still complained of occasional attacks of vertigo, but there was no staggering, and he could walk well with his eyes shut or open. He was still taking at times iodide of potassium (half-drachm doses).

Case 5.—Headache, Staggering, Vomiting—Difficulty in the Articulation of Speech—Optic Neuritis—Death—Fibrosarcomatous Tumour in the Right Cerebellar Lobe, pressing on the Vermiform Process and on the Medulla.

Thomas T., aged forty-eight, married, pattern-maker, was admitted into Manchester Infirmary, on May 2, 1881, suffering from all the symptoms of cerebellar tumour, and died on July 17.

The following is an outline of the case as taken by Mr. J. W. Bentley, Clinical Clerk:—

Previous History.—Patient has always enjoyed good health till six months before admission, when the first symptoms of the present illness showed themselves. He has taken a good deal of beer, and smoked moderately; he has never had syphilis, and never suffered from rheumatism though he worked a good deal in draughty rooms. Six months ago, without any cause, he commenced to suffer from severe frontal and occipital headache, morning vomiting and dizziness; he staggered also in his walk. These symptoms rapidly became worse, and for the last three months he has been laid up at home, especially owing to the staggering and headache.

Condition on Admission.—The patient lies in bed on his back, and sleeps the greater part of the day; he is thin and emaciated, and looks considerably older than he is. The skin is dry, but cool (temperature 98°); there is no rash nor are there any cicatrices on the body; the glands are not enlarged. The intelligence is fair; there is severe and almost constant frontal and occipital headache; the eyesight is not very good; there is marked optic neuritis in both eyes, with considerable swelling of the disc and numerous small hæmorrhages all over the retina, but especially in and near the disc; the hearing is good; the taste impaired; the speech is slow, thick, and scanned; there is however, no aphasia, and he can pronounce all the letters of the alphabet; there is no facial paralysis; the tongue is put out straight, and its movements do not seem impaired, nor is it in any way atrophied; there is no anæsthesia of any part of the face; the oculo-motor muscles are normal; the pupils are slightly dilated and act but sluggishly. The patient is totally unable to stand or to walk, owing to the excessive staggering. When left standing by himself he always falls to the right and backwards; when trying to walk, assisted on both sides, the same tendency to fall is noticed; when lying down, all limbs can be moved freely, and show considerable power. There is no anæsthesia or analgesia of any part of the body; the superficial and deep reflexes are normal. The bladder and rectum are not affected. The examination of the lungs shows the presence of bronchitis in both lower lobes. The patient has a slight cough; sputum is scanty and frothy. The heart is normal; the pulse 65, thin and compressible. The tongue is thickly furred, appetite very bad; there has not yet been any vomiting; there is constipation. Liver-dulness and spleen-dulness are normal. The urine is acid, specific gravity 1020, has no sediment, and contains neither sugar nor albumen. The patient micturates frequently, but without any pain. Quantity of urine in twenty-four hours, three pints and a half.

Diagnosis.—Cerebellar tumour of right lobe of cerebellum, implicating the vermiform process on that side.

Treatment.—Applications of ice to head; bromide and iodide of potassium.

Progress.—The condition of the patient remained unaltered for some time; the headache slightly diminishing. The patient, however, after a time, became gradually more fatuous; his speech was much thicker, and articulation more difficult; he had also some difficulty in swallowing fluids; at times his speech became incoherent, and he was slightly delirious; but no distinct paralysis of the muscles of the

face, lips, or tongue could be noticed. Towards the commencement of July it was noticed that the patient was much weaker. There was then distinct paresis of the lower extremities, the bladder and rectum were likewise affected; the superficial and tendon reflexes were, however, still normal; the headache was much better; the optic neuritis still as marked as on admission. The patient gradually sank, and died on July 17. During the whole of his stay in the hospital there had been no convulsions, and he vomited only three times.

Post-mortem Examination (made by Mr. A. H. Young, Pathologist to the Infirmary, on July 18).—The skull and membrane of the brain showed nothing abnormal; the ventricles of the brain were much distended with fluid; the brain substance on section was anæmic, but otherwise healthy. On the inner side of the right lobe of the cerebellum there was found a small uniformly firm and hard tumour running along the inner side and extending forwards and downwards. The tumour measured an inch and a half in length, in breadth three-quarters of an inch anteriorly, half an inch posteriorly. The tumour had caused a considerable depression in the superior vermiform process, and had also pressed forward on the pons and medulla, causing slight flattening of these parts. The further examination of the tumour showed that it had sprung from the pia mater covering the upper and inner part of the right cerebellar lobe, and it could be completely detached and separated from the cerebellum on stripping the pia mater. Microscopic examination showed it to consist of fully formed fibrous tissue, with small islets of a more embryonic growth (round nuclear cells and spindle cells). The medulla and spinal cord were hardened and examined microscopically, but were found normal in all their parts; the cerebellar tracts of fibres in the spinal cord were in no way affected, and the ganglia cells in the vesicular columns of Clarke were well marked.

Remarks.—The case requires hardly any comment. The symptoms were very typical from the commencement. The difficulty of articulation and of deglutition was no doubt due to pressure on the medulla; the staggering I am inclined to ascribe to the implication of the vermiform process. The absence of convulsions is to be noticed in this as in the first case: probably it is owing to the fact that only a small portion of the cortex of the cerebellum was involved; the outer, and a great part of the upper and under surface having remained free. It having been recently stated that the direct cerebellar tract of the spinal cord, along with the corresponding ganglia cells in the vesicular columns, are found affected as a secondary descending sclerosis, though it is known that these fibres run upwards to the cerebellum, I examined the spinal cord in this case carefully, with the view of detecting any descending changes; I found, however, all the parts perfectly normal.

OBLIGATORY VACCINATION IN SWITZERLAND.—During the passage of a new law on epidemics the Swiss National Council adopted by ninety votes against twenty-three the principle of obligatory vaccination. Every infant born in Switzerland must, according to this law, be vaccinated during the first year of its life, or at latest during its second year; and infants born out of Switzerland, if not previously vaccinated, must submit to the same rule. No child can be permitted to frequent a public or private school without a certificate of vaccination.—*Gaz. Hebd.*, January 1.

DIARRHŒA OF TYPHOID.—The excessive diarrhœa of typhoid is said to be remarkably controlled by the administration of twenty drops of turpentine every two or three hours.—*New York Med. Record*, December 3.

SUDDEN DISLOCATION OF THE LIVER.—Dr. Garnett relates in the *American Journal of Medical Science* for January, 1881, what appears to be the only case on record of sudden dislocation of the liver. A lady, fifty years of age, while stooping hurriedly, "felt a sudden wrench or giving way on the right side." Examination revealed a displaced liver reaching to the crest of the ilium. Much discomfort was experienced, but the patient was relieved by spontaneous reduction in the space of three days. A week's confinement in bed, followed by the use of a broad elastic band around the waist, constituted the treatment, and the patient regained, to a great extent, her normal condition.—*New York Med. Record*, December 10.

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Medical Times and Gazette.

SATURDAY, JANUARY 14, 1882.

POISONING BY ACONITE AND ACONITIA.

A CASE which is still in the stage of investigation, and to which no further reference need here be made, has profoundly excited the public mind as to poisoning by aconite and its active principle, which is of the alkaloidal character, sometimes termed aconitia, sometimes aconitine. Nor has the enlightening agency of the public prints done much good when they have tried to dabble in toxicology, for there is no subject apparently beset with more difficulty than appears to be the case as to the mode of action of aconite and aconitia. For this there are various reasons, which we shall try to make clear.

In the first place, then, not always the same plant is referred to by different writers and observers, for there are many species of aconite, some highly dangerous, some almost or altogether harmless. The well-known blue monkshood, in the wild state, is that which is considered the most powerful in this country, whilst that which is cultivated is said to be less active; and the whitish or yellowish flowered plant found in our gardens is almost or altogether inert. Different species likewise affect different countries; hence much of the conflicting evidence, especially between English and German observers. But more dangerous than any species of monkshood that grow with us is the *Aconitum ferox* of India, which yields one of the deadliest poisons known, and of which more hereafter.

Then again, though all parts of the aconite plant are poisonous—roots, seeds, and leaves,—they are not all alike dangerous, and they vary in intensity of poisonous activity according to season. Thus, the leaves are generally most active before flowering time, the roots are strongest in autumn. In this way, therefore, it is easy to understand that a preparation of the leaves pulled at one time, or indeed at any time, cannot well be compared in strength with a similar preparation of the root made at another. In this way, therefore, discrepancies in the various accounts of aconite-poisoning may well arise.

But there are yet two modes of helping to reconcile the terribly discordant records which have come to us of what follows an overdose of aconite. We have, of course, the very different effects produced by different quantities of the same drug, as is the rule with all toxic substances. But we would also seem to have to encounter a farther difficulty, arising from what seems to be the fact that aconite owes its activity to two distinct principles found in different species in relatively varying quantities; nay, more, which seem to exist in the same way in the substance commonly called aconitia. These two principles differ in certain respects—the one possessing, as it is said, more the characters of a local irritant, the other those of a neurotic poison. Thus the acrid principle is said to be most abundant in the *A. ferox*, the neurotic in the *A. Lycoctonum*; and as the aconitia prepared by Morson—almost the only makers in this country—is said to be obtained chiefly from the Indian growth, we can easily understand that its irritant character would be more strongly marked than that obtained from other species of aconite. In Germany the *A. Lycoctonum* is the most abundant species, and the German aconitia is correspondingly weak in the irritant principle, some recent observers having, indeed, gone so far as to say it is of no use. Many, however, will see certain difficulties in the way of accepting a view which implies the existence of two substances so nearly identical chemically, on purely hypothetical grounds, or at all events on very slender foundation of fact; and we only cite this view as one which has been adduced to explain the very various effects of a dose of aconite. The difference of effects in the case of different quantities stands, however, on grounds of actual experience—as, for instance, when two or more people have partaken of the same poisoned food in different quantity.

Let us turn, however, to the effects themselves, and probably nothing will give a better clue to these than the term sometimes applied to aconite, of “vegetable arsenic.” Undoubtedly there are other symptoms besides those produced by arsenic, but it may be said that arsenical symptoms are always present, and this should be borne in mind by the practitioner. First, we may take those symptoms on which all men are agreed, and the most notable of these is the local effect of the aconite, consisting of a burning sensation, followed by a numbness and tingling in the lips and tongue, succeeded by a burning heat in the throat. There is commonly irritation of the salivary glands, producing a free flow of saliva, which being churned in the mouth, gives rise to froth about the lips. Sooner or later there is usually pain about the pit of the stomach, followed by vomiting and sometimes purging. There is loss of power in the extremities, so that the patient cannot sustain himself, sometimes not even raise the arms, whilst the numbing, tingling sensation is often nearly universal, though sometimes limited to the farthest points of the extremities. There never appears to be loss of consciousness, though that may be simulated; and it has been said that convulsions never occur in the human being, though that is incorrect. Tremors and cramps are, however, usual. Still more important are the retarded respiration, often sighing, and the slow irregular or even intermittent pulse with a cold and livid skin. Death seems to result from some form of asphyxia, for the left heart is usually found empty, the right gorged with blood.

There is no point on which there is greater difference of opinion, or rather observation, than as regards the pupils. Many tell us they are contracted, many intensely dilated. Probably they may go through both phases, being contracted with a small dose or early in the attack, becoming dilated towards a fatal termination.

As regards the nervous symptoms, we have already indicated that the peculiar burning and tingling are almost invariable. There seems to be no loss of consciousness, nor

anything like real coma, though sometimes delirium, and almost invariably giddiness, weakness even amounting to paralysis, sometimes tremor and cramp approaching to general convulsions. Often there are deafness and frontal headache. To the same group may be referred through the vagus the heart and lung symptoms.

The irritant symptoms begin with the local burning sensation in the lips, mouth, throat, and abdomen; probably also the salivation depends on the same cause. The vomiting is sometimes early, sometimes does not come on for a long time after swallowing the poison, even when such emetics as mustard have been given. The purging is still less certain, especially if death be rapid. Perhaps these irregularities, which have commonly been observed in connexion with poisoning by aconite itself or some of its preparations, may have been due to differences of strength or differences of chemical constitution.

After death, the only indications noted have been great or considerable congestion of the brain, distended right heart, empty left, and congested lungs. Sometimes marks of local irritation, in the shape of small blisters, have been found in the mouth, and localised or general reddening of the stomach has almost invariably been found. Sometimes the marks of gastric irritation have been much more decided, and something like blisters detected.

The three best-known cases of aconite-poisoning are that of Mrs. McConkey, who poisoned her husband by mixing powdered aconite-root with the pepper which she sprinkled over a portion of greens served for his dinner; the Dingwall case, where a number of people were poisoned by eating aconite for horse-radish; and, finally, the case of Hunt, who first destroyed his wife and children, and then poisoned himself. This is one of the most complete cases recorded. That worthy man, Dr. Pritchard, finding that his mother-in-law did not leave this world soon enough, helped her into another by mixing some aconite with the Battley's sedative she was in the habit of using.

CHANGING ASPECTS OF MEDICAL SCIENCE.(a)

PROFESSOR MARCHAND, who succeeds the lamented and too little known Perls in the Chair of Pathology at Giessen, has chosen for his inaugural lecture a subject which must often have entered the minds of reflecting persons. Research is now followed out so systematically, he says, that we may awake any morning to find that the whole face of some province of pathology has been changed by an important discovery. Who, then, can keep up with the advancing line of knowledge? And what does it profit the medical students of any one period to store their minds with statements and doctrines that will be obsolete before they have got well settled in the routine of practice? Professor Virchow has supplied the sensible answer to the last part of the question: “Once at least in his life every scientific man ought to have found himself abreast of the then state of knowledge in his profession and in the sciences underlying it.” Of the great body of practitioners more cannot be expected, and it would be well for the profession if that much were always attained to. Unfortunately, pupils do not always pass from under the eye of the master furnished with such mental equipment. A professor or lecturer who keeps abreast of the advancing line of knowledge by inserting between the leaves of his manuscript cuttings from the journals and the year-books, who conscientiously sets before his hearers the latest views of Arbeiter, and the damaging criticisms thereon from the able pen of Beiträger, can hardly be said to be a satisfactory instructor

(a) “Ueber den Wechsel der Anschauungen in der Pathologie.” Akademische Antrittsvorlesung, von Dr. Felix Marchand. Stuttgart, 1882.

of youth. It is no doubt the duty of every teacher in the medical sciences at any given time so to teach that his pupils may, for once at least in their lives, be up with the advanced line of the science; but the duty is an arduous one. The task will probably be easiest to the man who has himself seen the inner working of laboratories and the hidden mechanism of research, who himself knows to sing and build the lofty rhyme, and who has a robust appreciation of the work of his contemporaries. Where, he will calmly ask, are both Arbeiter and Beiträger likely to be twenty years hence? Has their work the directness and simplicity that keep it ever fresh, or has it an element of transitoriness? It must have happened to most people, in the vacant moments spent in a public library, medical or other, to experience a passing feeling of depression, not to say despair, at the sight not only of the books in dingy brown leather on the shelves, but also of the spick-and-span new journals on the table. It was perhaps some such feeling that provoked the memorable observations on Dryasdust in the opening chapter of Carlyle's "Cromwell": "There are from Thirty to Fifty Thousand unread Pamphlets of the Civil War in the British Museum alone: huge piles of mouldering wreck, wherein, at the rate of perhaps one pennyweight per ton, lie things memorable. They lie preserved there, waiting happier days." It is true, the natural sciences are more "objective," as the phrase goes, than the historical; a fact is always a fact, and if it be kept long enough, a use will always be found for it. All facts, it may be said, in no ironical sense, await happier days; though many of them will have to be discovered anew before they take their appropriate place in the great volume of knowledge. Nothing but a most vigorous, we might almost say a ruthless, criticism directed upon the accumulated doctrines of the past, and equally upon the endless productions of the present, will ever enable a teacher of medicine to present to his pupils his department of science up to date. And we are bound to say that such criticism is always operating in the mass if not in the individual. Somehow it happens, in the doctrines of a science as among living things, that the fittest survive; opinions that seemed to have become obsolete are after a time found to be again in the front rank of modern opinion. The instances which Professor Marchand chooses in order to illustrate the chameleon-like changes in the aspect of pathology, will bear us out in that statement, though it is not, perhaps, altogether intended that they should do so.

The subjects selected to show the shifting nature of pathological opinion are inflammation, cancer, and tubercle—three great subjects of everyday interest to all practitioners. The discovery that the body was made up of cells and of cell-derivatives was naturally a new departure for pathology. Pathology had, as it were, to be rewritten; and that re-writing or new departure was coincident with the appearance of a great personality on the scene—Professor Virchow. In applying the new cell-doctrine to inflammation, that sagacious observer and wise philosopher, aided materially by contemporary workers, especially in this country, came to teach that it was the all-pervading and intercommunicating connective-tissue cells which were affected by the inflammatory excitant; they enlarged, their contents became cloudy or granular, and they either broke down into detritus, or they entered on an active and proliferating phase ending in the formation of pus. The four cardinal points in inflammation stood as heretofore, and the connective-tissue doctrine became the modern gloss upon them. But has that doctrine, arising like a virgin growth out of the new soil, proved itself to have vitality and the elements of permanency? Professor Marchand thinks not; he thinks that the emigration of white blood-cells from the small veins is now the dominant

idea in inflammation. Everyone who is in the habit of looking at the scientific journals (or their covers) will recall the controversies that followed the announcement of Cohnheim's new doctrine of inflammation; the chosen battle-field was the cornea, inasmuch as it naturally contained no bloodvessels—a bloodless field of controversy,—and there came paper after paper on "Die Keratitis," "Wieder die Keratitis," and "Noch einmal die Keratitis," until, after lasting several years, the controversy ceased. With due deference to Professor Marchand, who appears to be something of a partisan, we venture to say that the general voice of the profession is still with the connective-tissue doctrine of inflammation: blood corpuscles, both red and white, escape from vessels in inflammation, and may infiltrate the tissues, forming inflammatory products in a somewhat super-subtle sense; but for suppuration on the large scale, for abscess-formation, and, in fact, for the ordinary phenomena of inflammation met with in surgical practice, the original teaching of the cellular pathology stands. Still more certainly does it stand for the process of repair.

The second illustration of change of view in pathology is cancer. The re-writing of the pathology of tumours which the cell-doctrine rendered necessary was begun by Johannes Müller, and carried out by others, especially by Virchow in his monumental treatise on the morbid growths. Tumours were everywhere shown to correspond in their texture and in their mode of growth with one or other of the normal tissues of the body—everywhere, except in cancers. Although Virchow was never tired of showing, for one tumour after another, that they were made subject to no laws of growth and structure that were not also the laws of healthy life, yet he made a deliberate exception in the case of cancers. He maintained that the epithelial cells of cancer grew, not from pre-existing epithelium, but from the cells of the all-pervading connective tissue; and no doubt the motive of that remarkable assertion was that the facts of the case appeared to him to be so. But a school of pathologists arose who thought that Virchow's cancer-doctrine was nothing better than a survival from the evil times when tumours were held to be mysterious and separate things. Those advanced thinkers showed, without much difficulty, that the doctrine of cancerous epithelial cells growing from connective tissue directly contradicted a great embryological law: epithelium, they said, can only grow from epithelium; it is the fixed and immutable law of growth, good alike in health and disease, and inherent in the body ever since the three embryonic layers became separate. That kind of doctrine has a fascination for a certain order of minds, and here is so recent a writer as Professor Marchand naïvely expressing his astonishment that the astute author of the cellular pathology should have resorted to a non-physiological principle to explain the growth of cancer. We venture to say that in a few years we shall hear no more of the embryological law of epithelial growth in cancer, even from the most advanced of thinkers; they will find out that they may very well be at the end of their line without being at the bottom of the ocean. The general sense of the profession has at no time lost sight of the fact that cancers are tumours with a difference; and that difference is expressed in the original doctrine of the cellular pathology, that the epithelial cells of cancer grow heterogeneously from the cells of the all-pervading connective tissue.

The last example of changing view in pathology is tubercle, and we have here at length an opportunity of showing that we are writing not merely as the apologists of Professor Virchow's opinions. If those who were at college when the cellular pathology was new, are now finding, after a quarter of a century's ups and downs, that the teaching

of their youth keeps them still not far behind the advanced line as regards inflammation and cancer, then a still older generation may congratulate themselves that the revolving years have brought the doctrine of tubercle back to where it started from. Such at least is Professor Marchand's opinion, and we see no sufficient reason to question the correctness of it. It is curious to think that although Laennec's original doctrine of the unity of phthisis had at one time almost gone out of fashion with pathologists, at the time when they all saw the profound difference in kind between caseous catarrhal pneumonia and true tuberculosis of the lung, yet the general sense of the profession never quite succeeded in discovering any real or fundamental difference between one kind of pulmonary consumption and another.

IODOFORM.—II.

Of the use of iodoform in the treatment of soft chancres, little or nothing needs to be said. It is generally acknowledged that, except in those rare cases in which considerable pain is produced, or in those rarer ones in which its application appears to excite inflammation, the mere dusting of the powder over the sore is almost sufficient to insure a healthy action. Its employment has certainly considerably reduced the duration of this disease, and has done away with the necessity of such painful applications as fuming nitric acid to the exquisitely tender surface. In the out-patient practice of a hospital the use of iodoform will soon banish that most offensive class of cases, the stinking ulcers of the leg. We have long been in the habit of using an ointment composed of iodoform, eucalyptus oil, and vaseline, which has the advantage of enabling the patients to keep their ulcers aseptic whilst changing the dressing themselves daily. It must be owned, however, that this ointment has occasionally set up a rather severe form of dermatitis, due possibly to the fact that iodoform, when dissolved in an essential oil, is apt to undergo decomposition into products of a very acrid nature. Another excellent method of treating ulcers of the leg is to dust the powdered iodoform over them, and then to apply over the sore a piece of the oiled silk protective, and over this a mass of the iodoformised cotton. A firmly applied bandage securing this combines the advantage of a uniform and continuous elastic pressure with that of asepticity. If an ointment such as that described above be employed, and if the patient be directed to use a 5 per cent. carbolic lotion when changing the dressing, it will be found that many smaller abscesses will also remain quite aseptic, though the dressings be frequently changed between the times at which the patient is seen by the surgeon; but if this is to be attempted, it is advisable to incise freely, and thus dispense with the necessity of the drainage-tube. Very similar is the application of the drug to burns: an extensive stinking burn may be purified by a single application of the powder; we have ourselves employed it in such cases with the greatest possible benefit, and it may be remarked that if it be intended to dress the burn with protective and boracic lint (a most excellent application in such cases), the use of the iodoform gives this great safeguard, that, supposing a spot of putrefaction be left beneath the protective, or putrefaction spread inwards beneath the edge at the part from which the greater part of the discharge escapes, the mischief does not extend itself, but is limited or subdued by the iodoform in its neighbourhood. In this connexion it may also be observed that it is extremely useful in cases of otorrhœa, ozæna, ulcers of the septum nasi, etc. In the treatment of these diseases it may be applied either alone or in combination with any other powder, the employment of which the particular case may render advisable—bismuth, tannic acid, oxide of zinc, or

what not. It is easy to blow the powder up the particular part in question, and we would suggest that by means of a speculum it might be used in a similar way in the treatment of vaginitis, though we do not profess to speak on this subject from experience; it may be suggested, however, that a plug of iodoform cotton, inserted into the vagina, might enable the surgeon to perform a strictly aseptic abdominal section in a case where it was impossible to avoid interfering with the vagina or the uterus.

The iodoform cotton is an introduction from Germany; and consists of absorbent cotton-wool which has been thoroughly impregnated by means (we believe) of soaking it with an ethereal solution of the drug. An absorbent lint has been prepared in the same way. This may be advantageously applied to a variety of wounds and sores; but its efficacy is particularly manifested in wounds about the perineum, say, *e.g.*, a hernia. Thus the operation may be performed with the strictest antiseptic precautions, but instead of putting on a gauze dressing, the parts are enveloped in a mass of the cotton, a wise precaution being to previously smear the surrounding hairs with some iodoform ointment. If the stitches are of catgut the dressing may be left on for a week, at the end of which time the drainage-tube may be removed; the stitches, if they have not become absorbed in their deeper parts, may be either taken away or left, as desired, and the second (which will probably be the final) dressing applied. It cannot fail to be observed that this greatly increases the possible field for the performance of antiseptic operations in the country.

The Germans are using the drug in a most wholesale way—we had almost said reckless, because it seems very doubtful whether its use is advisable in many of the cases for which they now employ it, and still more doubtful whether these very large amounts are any more efficacious than smaller quantities; while it is certain that several cases of death have been reported, some of which probably, and others certainly, were due to its toxic effects. We need not again refer to the character of the symptoms of iodoform-poisoning; but we shall have done enough to justify our first proposition when we say that cases are on record where, after scooping out a cavity in a carious bone, as much as 120 grammes were placed in the hole (which, it will be remembered, represents 1800 grains), and even larger quantities have, we believe, been introduced. A good idea of the way in which iodoform is being used will be gained by reading an elaborate article by Mikulicz in *Langenbeck's Archiv*, xxvii., page 196, which describes the state of things at Vienna. It is there stated that it is not only employed in such cases as those we have described, but to operation-wounds which involve any of the cavities of the body, and also to all recent wounds whatever. For the former class of cases, as well as in some others, it has been found useful to make the iodoform into a paste with resin or some other substance; this can be inserted into a sinus or packed into a cavity, such, *e.g.*, as a wound in the mouth. A similar use of the drug was, it will be remembered, made by Mr. Watson Cheyne in his iodoform bougies for gonorrhœa. The advisability of its application to recent wounds we venture very seriously to doubt. Indeed, while fully appreciating the immense utility of the drug, we think it quite possible that enthusiasm in its favour is carrying our German brethren too far. It is not quite clear whether its antiseptic qualities are really equal to its disinfecting power, and we must be careful how we trust too blindly to it in this respect; some experiments by Mikulicz himself are sufficient to raise a doubt on this point. He mixed the powder with samples of various putrescible fluids, and stirred them up daily, and yet he found that, though much delayed and diminished, fermentative changes took place in these fluids unless the proportion of iodoform

was, comparatively speaking, large. Again, it has been assumed that iodoform exerts a specific action upon the tissue of lupus or tubercle; this has led to its very free employment to the scraped surfaces of supposed tubercular disease of joints and bones, and to lupous affections of the face, etc. That it is very useful in such cases none can doubt, but that its wholesale employment is to be recommended is very doubtful indeed; and that it exerts this specific action is now not maintained by many who some time ago were very positive upon the point.

More might be added, but we have reached the limit of our space, and, in conclusion, would repeat the word of warning—we are not yet fully aware of the true antiseptic qualities of iodoform, and we do know that it does under certain circumstances produce very serious and, indeed, actually fatal results. Of its internal administration we can say nothing from personal experience, and therefore will not venture upon this part of the subject.

THE WEEK.

TOPICS OF THE DAY.

THE Executive Committee of the Smoke Abatement Exhibition are very persistent in their endeavours to bring this important subject before the public generally; and if they can induce owners of house property to follow the example of the Duke of Westminster, the present Exhibition will not have been undertaken in vain. If, without legal enactment, it can be brought about that all newly built houses shall be fitted with smoke-consuming grates, a great step will undoubtedly have been secured; but more than this will be required if the metropolis is really to benefit by the agitation of the National Health and Kyrle Societies. Meanwhile, the Show can boast of having attracted the attention of Royalty: the Prince of Wales recently paid a lengthened visit to the Exhibition, and was received by the principal members of the Committee. The various sections were inspected in detail, the Prince receiving explanations from Mr. Playfair, Dr. Siemens, Mr. Hart, Mr. Clark, and Mr. Coles, as well as from various exhibitors, of whom he made numerous inquiries. His Royal Highness expressed great interest in, and satisfaction with, what had been brought to his notice, and assured the Committee of his approval of the object sought to be attained. The Princess Louise, accompanied by the Marquis of Lorne, also visited the Exhibition for the second time. Her Royal Highness showed particular interest in the exhibits of small kitcheners, grates, etc., suited to cottages and small tenements, as well as in the Gray adjustable grate-back and fuel economiser, and the Crosthwaite stoves, which, from their intense heating power, were deemed suitable especially for Canadian use. The Marquis of Lorne requested that full particulars of the Exhibition and trials should be forwarded to the State Department of the Dominion of Canada.

Mr. Barstow, the magistrate at the Clerkenwell Police-court, has recently given a deserved, if severe, lesson to owners of house property. A Mr. William Saunders, the owner of eleven houses in Poplar-place, St. Pancras, was summoned, at the instance of the Vestry of St. Pancras, for neglecting to supply sufficient water-closet accommodation and suitable water-supply and apparatus for the houses. The water-closets in question were under the stairs, and were totally without ventilation and water-supply. The inspector explained that he could not find the accommodation without procuring a light, and the stench was overpowering; he also stated that there had been cases of typhoid and scarlet fever in the immediate neighbourhood of these buildings. The solicitor who appeared for

the defendant asked for an adjournment of the summonses, as the necessary works to remedy the defects complained of were in progress. This application Mr. Barstow declined to grant, since he considered the cases very bad ones. He fined the defendant £10 and 2s. costs in each case, making in all a penalty of £111 2s.

An interesting paper, "On the Rates of Fatal Accidents in Various Occupations," was read at a recent meeting of the Institute of Actuaries, King's College, by Mr. J. H. Whittall, of the Clerical, Medical, and General Life Insurance Society. The tables quoted were based upon a comparison of the male population in each occupation in England and Wales, as enumerated in the census of 1871, with the average of the number of violent deaths occurring to male persons following that occupation in England and Wales during the three years 1870, 1871, and 1872. Accidents to persons under ten years of age had been excluded, and to make the investigation complete, the whole of the deaths were next classified with respect to age, the influence of age on accidents being among the subjects noted. The total number of deaths classified was 25,455. The first table gave results in 157 occupations, where neither the nature of the occupation nor the results themselves suggested any disturbing influence. Taking them in order of comparative immunity from fatal accidents, the list was headed by authors, etc., and students: total accidents in the three years under notice, 23; population in 1871, 61,085; average annual rate of fatal accidents per 10,000, 1.3. Protestant ministers: 5; 9264. Schoolmasters: 15; 19,378; 2.6. Clergymen: 17; 20,694; 2.7. Medical students: 4; 4514; 3.0. Printers: 49; 44,066; 3.7. Teachers, professors, and lecturers, 3.7 per 10,000; domestic servants, 3.9; tailors, 4.3; bootmakers, 4.3; barristers, 4.7; merchants, 4.8; commercial travellers, 4.8; civil engineers, 5.1; Civil Service, 5.2; butchers, 5.3; commercial clerks, 5.3; solicitors, 5.4; police, 5.5; horsekeepers, grooms, and jockeys, 5.7; coach, omnibus drivers, etc., 6.0; painters (artists), 6.0; undertakers, 6.9; actors, 7.0; veterinary surgeons, 7.0; physicians and surgeons, 9.3; cabmen, etc., 10.9; plumbers, painters, and glaziers, 11.5; horse-proprietors, 14.7; pilots, 27.4; bargemen, etc., 40.1; and the highest, horsebreakers, 47.9. Other tables dealt with dangerous occupations, such as coal-miners, etc. A lengthy discussion followed the reading of Mr. Whittall's paper, in the course of which Mr. Adler said, with regard to the rates of non-fatal to fatal accidents, that from investigations at Chemnitz it was found that for 91 deaths there were 213 total disablements, 369 partial disablements, and 8177 accidents of a lighter character, or, roughly, about 100 accidents to one death.

A Reuter's telegram, under date Washington, the 5th inst., says:—"The officers of the National Board of Health and of the Government Hospital Service have had interviews with President Arthur with regard to the alarming prevalence of small-pox, at which they urged the necessity for immediate legislation, with a view to its suppression, and the compulsory vaccination of all immigrants arriving in the country. President Arthur, in reply, stated that he would probably make the question the subject of a special message to Congress."

At the recent Surrey Sessions, just before the Court rose, the foreman of the grand jury handed the following presentment, signed by all the members, to the chairman:—"That the whole of the vacant site at Horsemonger-lane Gaol, not now being used for county purposes, be handed over to the Local Authority or to the Metropolitan Board of Works as a recreation ground, which the grand jury further present, is urgently needed for the densely packed and poor population of that part of the county; and they consider

that this appropriation of the site is the only wise plan of dealing with the land in question." Mr. Hardman, the chairman, said the magistrates fully agreed with the grand jury. The presentment would be forwarded to the proper quarter.

At the first meeting of the Metropolitan Asylums Board since the recess, the present position of the small-pox epidemic in the metropolis was brought under notice by the reports received from the various hospitals. It was shown that altogether 333 patients had been admitted since the last meeting of the Board, a month ago; also that 65 had died, and 217 had been discharged during the period, leaving 386 acute cases in the hospitals, and 114 convalescents at Darenth; in all, 500 under treatment, as compared with 475 four weeks ago. Of the acute patients, 115 were in the ship *Atlas*, 19 at Homerton, 44 at Stockwell, 6 at Fulham, and 170 at Deptford. The reports of the fever hospitals showed that at Stockwell 52 patients had been admitted, 9 had died, and 125 had been discharged in the four weeks: that in the same period 107 had been admitted to Homerton, 17 had died, and 117 had been discharged; while at Deptford 60 had been admitted, 14 had died, and 15 had been discharged. In the whole, there were remaining under treatment 248 scarlet fever patients, 36 typhus patients (the large majority of these from the East and North-east of London), and 130 enteric fever patients; in all, 414 fever patients under treatment, as against 498 a month ago. In the discussion of detailed matters in connexion with the hospitals, Sir E. H. Currie pointed out (in reply to some criticism on the part of certain guardians) that the establishment of the *Atlas* hospital-ship gave the Board the cheapest possible hospital accommodation it could have, for, at the cost of £10,000 only, between 200 and 300 beds had been provided. Sir Edmund also gave notice that it was intended to close the convalescent dépôt at Darenth for small-pox patients from the 9th inst. Letters were read from the Local Government Board, giving official sanction, in several respects, to proposals of the Managers; and from the Lunacy Commissioners, reporting on inspections of the imbecile asylums. A resolution from the City Guardians, asking for a Royal Commission to inquire into the expenditure and duties of the Board, it was not considered necessary to notice, as the Government had expressed their intention of dealing with the Board in some form in the coming session.

Speaking at the last meeting of the Metropolitan Asylums Board, Mr. Bengough called attention to a statement made to that body, that six children of one family, lodging at a house in Denman-street, Haymarket, in the parish of St. James's, Westminster, had been brought to the Stockwell Hospital in an ambulance of the Westminster Union, all suffering from hæmorrhagic small-pox. All these children were unvaccinated. The father was a journeyman tailor, earning good wages as an *employé* of a highly respectable West-end firm. He made up clothes for customers in the house whence the children were taken, and in the same house a laundry was carried on, at which clothes were washed for the outside public. Other cases of the disease were also stated to have arisen in the same house, and to have been "nursed at home." Three out of the six children taken to Stockwell had died, one immediately after admission; and it was stated that they were in a filthy condition when removed from Denman-street. It was agreed that the Stockwell Committee should be requested to report upon the subject.

It is announced that the inaugural ceremony in connexion with the University College of Liverpool will take place on the afternoon of the 14th inst. in St. George's Hall. The

Earl of Derby, the President of the College, will preside on the occasion, and the Principal, Professor Rendall, will deliver the inaugural address. The classes of the Medical Faculty are to be open to male students only, and the following appointments have been made:—Professor of Medicine, A. T. Houghton Waters, M.D., F.R.C.P.; Professor of Surgery, Rushton Parker, B.S., F.R.C.S.; Professor of Anatomy, W. Mitchell Banks, M.D., F.R.C.S.; Professor of Physiology, Richard Caton, M.D., M.R.C.P. The lectures and classes will commence on Monday, the 23rd inst.

The Central Committee of the St. John Ambulance Association have issued a circular convening a meeting of the representatives of the different London hospitals, the medical staff of the Association, and of divisional police surgeons, to be held at the rooms of the Association, St. John's Gate, Clerkenwell, at half-past four o'clock on the afternoon of the 16th inst., to consider a system of placing ambulance stations in telegraphic communication with the hospitals of the metropolis, and the best means of wheeled transport.

THE CASE OF ACCIDENTAL POISONING AT GUY'S HOSPITAL.

OUR readers will have seen in the daily papers a report of the coroner's inquest on the recent case of accidental poisoning at Guy's Hospital. There was in the ward a patient who was taking quinine in the form of powder. There was another who was suffering from disease of the bladder, which was being treated by washing out the organ with a solution of morphia. For this purpose morphia was sent up in ten-grain powders. The dispenser, knowing that this amount was poisonous, had specially inquired into the accuracy of the prescription before he made it up. The sister of the ward, as a precaution against accident, kept these powders in a basket, placed on a table in the ward, instead of, as usual, in the bracket at the head of the bed. At the time of the occurrence we speak of, the ward was in charge of a nurse who had recently been ill, and having therefore been absent from duty for a week, was not familiar with the cases under treatment. She had been in the ward before, and said she had taken quinine powders from this basket on former occasions; though this evidence was not quite clear. On this occasion, however, she took from the basket and gave to the patient a powder which she thought was quinine, but which proved to be morphia; and the patient died in consequence. An interesting point in the case was the slowness with which symptoms came on. The patient was seen twenty minutes after the powder had been given, and then presented no symptoms of poisoning. This tardy onset of symptoms was supposed to be due to the patient having at the same time taken some milk, which coagulated in the stomach, and therefore prevented rapid absorption from taking place. It will be seen that the circumstances of the case leave no doubt that the fatal occurrence was "accidental," no special blame being attributable to any one of the persons immediately concerned, and this was the finding of the jury. There is one point, however, which is too remarkable to be overlooked, viz., that this accident took place in a ward which was in the charge of comparatively inexperienced nurses: the former sister, one of the most capable and excellent ward administrators that Guy's Hospital ever had, having recently had to go because she could not get on with the present matron. This especial occurrence, however, appears to us to have been due to a laxity of conduct all round: to the dispenser's want of due care, in sending into the ward a packet of morphia powders of deadly strength, without in any way labelling *each* powder as poisonous; to the sister's having placed these morphia powders in an open basket, accessible to anybody and everybody in the ward;

and to the carelessness of the nurses, in "concluding," without any examination, that the powders in the basket on a table in the middle of the ward were the quinine powders meant for her patient.

THE TRANSACTIONS OF THE INTERNATIONAL MEDICAL CONGRESS.

THE volumes of the Transactions of the International Medical Congress have now been published, and constitute a very valuable record of all the proceedings of the largest, most remarkable, and most important meeting of the medical profession that has ever yet been held. The whole work consists of four volumes, royal octavo, comprising 2548 pages, and 180 illustrations. The first volume gives the lists of the members and committees, and the rules; and contains the account of the general meetings, the general addresses, a report on the Congress Museum, and reports of the work done in the Sections of Anatomy, Physiology, Pathology, and Materia Medica. Volume II. gives the reports of the Sections of Medicine, Surgery, and Military Medicine. Volume III. deals with the work done in what may be called the Special Sections—those of Ophthalmology, of Diseases of the Throat, of the Skin, of the Ear, of the Teeth, and of Mental Diseases. And in Volume IV. we find the reports of the Sections of Diseases of Children, of Obstetric Medicine and Surgery, and of State Medicine. Each volume is provided with a table of contents, and the fourth volume is furnished with a general index of the subjects of the communications, and a list of the names of the contributors of papers and of speeches. We have not had time as yet even to glance through these four bulky volumes, but the paper and type are very good, and the whole execution of the work appears highly satisfactory and creditable to the Secretary-General and his able and willing co-workers. When it is remembered that not only the communications read in all the Sections are given, but also the discussions, a very fair idea will be obtained of the immense labour the work of publication must have entailed on Sir William Mac Cormac, his Under-Secretary Mr. Makins, and all the Secretaries of the Sections. We heartily congratulate them on the completion of their arduous task.

THE METROPOLITAN WATER-SUPPLY FOR NOVEMBER LAST.

THE Metropolitan Water Examiner reports that the state of the water in the river Thames at Hampton, Molesey, and Sunbury, where the intakes of several of the London companies are situated, was good in quality during only a part of the month of November last. On the 6th it became indifferent, and remained in that condition until the 14th; on the 15th it improved and became clearer, and remained good until the 21st; on the 22nd it became turbid, and continued so up to the 26th, upon which day the water was very turbid and bad, and this condition continued for the rest of the month, the river being in a state of flood during the whole of that time. The water in the river Lea was in a bad condition during the whole of the month. These remarks, of course, refer to the state of the water previous to filtration. In dealing with the condition of the water as delivered to the consumers, Dr. Frankland remarks that the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies showed, on the whole, a slight deterioration in quality from the standard which has been maintained during the past months. Still, considering the season of the year, the proportion of organic matter in the water was remarkably small. The Chelsea and Grand Junction Companies' water was slightly turbid, the latter containing moving bacteria, whilst

in every other case the water was efficiently filtered before delivery. The water drawn from the Lea by the New River and East London Companies was of about the same quality as last month, but the New River Company's water was slightly turbid, owing to imperfect filtration. An extract from the report made for the water companies by Messrs. Crookes, Odling, and Tidy, says:—"The quality of the water supplied by the London companies continues to be excellent, notwithstanding the unfavourable condition of the rivers consequent upon the heavy rainfall of the month. The aëration of the water is abundant, and its freedom from organic matter, but little less complete than during the summer months."

EAST LONDON HOSPITAL FOR CHILDREN, SHADWELL, E.

THE annual Christmas treat was held at this Hospital on Monday last, the 9th inst., in the presence of a large number of visitors and supporters of the Hospital, including Mr. Charrington (the Chairman) and Mr. Norris (Treasurer). The treat consisted in the time-honoured "tea and cake"; after which, various amusements, such as "Conjuring," "Punch-and-Judy," were provided. Then a "bran-tub" was brought into the room, and each child made a dive and got what he could; this, as usual, created great mirth and was highly appreciated. Finally, a box of toys and a suit of good winter clothes were given to each child. The expenses of the treat do not come out of the general funds of the Hospital, but were paid out of moneys sent in specially for this purpose; the toys and clothes were also presents to the Hospital, and were of excellent quality. The plan appears to be that the most deserving of the children who have been patients during the preceding year are invited. Thus upwards of two hundred sat down to tea. The entertainment passed off with great satisfaction to all concerned.

THE PARIS WEEKLY RETURN.

THE number of deaths for the fifty-second week of 1881, terminating Dec. 29, was 1092 (578 males and 514 females), and among these there were from typhoid fever 25, small-pox 9, measles 12, scarlatina 7, pertussis 4, diphtheria and croup 62, erysipelas 7, and puerperal infections 7. There were also 43 deaths from acute and tubercular meningitis, 53 from acute bronchitis, 87 from pneumonia, 65 from infantile athrepsia (22 of the infants having been wholly or partially suckled), and 23 violent deaths (22 males and 1 female). The increase of deaths upon those of the preceding week is trifling. Those from typhoid have diminished from 30 to 25, and those from measles from 16 to 12. The improvement in regard to diphtheria has not been maintained, the deaths having increased from 34 to 62. The births for the week amounted to 1116—viz., 570 males (409 legitimate and 161 illegitimate) and 546 females (403 legitimate and 138 illegitimate); 87 infants (50 males and 37 females) were born dead or died within twenty-four hours.

EXPERIMENTS IN THE PRODUCTION OF ABDOMINAL PREGNANCY.

PROFESSOR LEOPOLD, of Leipzig, has recently carried out some experiments of the above kind, the results of which we think it well to summarise, seeing that English physicians are prevented by foolish legislation from making any such researches themselves. The most obvious method of investigating the process of abdominal gestation would of course be to open the abdomen of a pregnant animal, cut into the uterus, and turn the embryo out into the peritoneal cavity. But this has the disadvantage that the operation on the uterus would be attended with some degree of shock, and probably ulterior ill consequences, which would

interfere with a favourable result from the experiment. Dr. Leopold therefore proceeded thus: he opened the abdomen and uterus of a pregnant animal, and then the abdomen of one not pregnant, and transferred in some experiments the embryo only, in others the embryo and its membranes and placenta, from the uterus of one animal to the abdominal cavity of the other. Then he closed the wound, and observed the result. Rabbits were the animals used. Embryos were transplanted two and a half, five, six, and eight centimetres long—those of the last mentioned dimension being as near maturity as could be obtained. We cannot quote the experiments in detail (an account of them is given in the *Archiv für Gynäkologie*); the lessons which they teach are, of course, the important part. As to result, the experiments fall into two groups—one in which peritonitis followed, from which the animals soon died; and the other in which they survived, and the transplanted embryo became encapsuled. In the cases in which peritonitis was excited, the foetus was found to have undergone rapid disintegration. Of the very smallest embryo transplanted, no trace was found when the animal died on the second day. Of those which were older, only some nodules of bone and cartilage remained, the soft parts having been absorbed through the agency of invading leucocytes. In the cases in which no peritonitis was excited, the animals were killed at periods varying from three to seventy days after the operation. The changes found, speaking generally, were that the foetus had become encapsuled; that the very early embryos were completely absorbed, not a trace of them being left. In the older embryos, the soft parts were more or less completely absorbed, the skeleton was left, and there was growth of bone and cartilage. In the latter result these experiments may usefully be compared with others published by the same author in Virchow's *Archiv*, in which he showed that bits of cartilage from young animals, when transplanted into the anterior chamber of the eye, were absorbed, while bits of cartilage from foetuses grew, and formed tumours. The chief practical conclusion which Dr. Leopold draws from his experiments is, that they make it seem probable that cases of extra-uterine gestation, ending in rupture of the sac and escape of the foetus into the abdominal cavity, may be much commoner than is thought, the symptoms being those of a pelvic hæmatocele, and the case ending in the death of the foetus and its absorption through the action of leucocytes.

THE LATE DR. REUBEN J. HARVEY, OF DUBLIN.

AN influential and numerously attended meeting of the friends of the late lamented Dr. Harvey was held at the King and Queen's College, Kildare-street, Dublin, on Monday, the 9th inst., for the purpose of considering the advisability, of establishing a suitable memorial of his professional worth and scientific attainments. The chair was taken by Dr. J. W. Moore, Vice-President of the College of Physicians. Drs. Edward Percival Wright and Christopher J. Nixon having been appointed honorary secretaries, Dr. Robert McDonnell moved and Mr. Richard W. Boyle, J.P., seconded the following resolution, which was adopted unanimously, viz.:—"Resolved, that in recognition of the eminent scientific ability of the late Dr. Reuben J. Harvey, and of his services to the advancement of the study of physiology and to the improvement of medical education, a fund be now raised to establish a memorial to him." The Committee to carry out the object in view was elected as follows, on the motion of Dr. Banks, seconded by Dr. Cruise:—Drs. Banks, Gordon, E. H. Bennett, Robert McDonnell, James Little, Barton, Cruise, Professor Haughton, Atthill, Kidd, Fitzgerald, Corley, J. W. Moore, L. H. Ormsby, Apjohn,

Lyons, M.B., McDowel, Gerald F. Yeo, with the Rev. Canon Smith, Mr. R. W. Boyle, J.P., Mr. Nicholas Lynch, J.P., and Mr. George F. Fitzgerald, F. Trin. Coll., Dub. Nearly one hundred pounds was subscribed in the room, Dr. George F. Duffey and Mr. R. W. Boyle being appointed honorary treasurers. At the meeting of the Pathological Society, on Saturday, January 7, Dr. William Stokes, President, in the chair, the following resolution was adopted:—"Resolved, that this Society desires to record its sense of the great loss which it, as well as the cause of pathological science, has sustained by the lamented death of Dr. Reuben J. Harvey, a member of the Council of the Society, and one of its ablest and most active workers." The Society adjourned without transacting any further business, as a mark of respect to Dr. Harvey's memory.

MANCHESTER MEDICAL SOCIETY.

At the annual meeting of this Society, held at the Owens College on January 11, the following office-bearers were elected for 1882 (those marked * did not hold the same office the previous year):—*President*: Edward Lund. *Vice-Presidents*: John Broadbent; *Arthur Gamgee, M.D.; James Hardie, M.D.; George Stevenson, M.D. *Treasurer*: *David Little, M.D. *Secretary*: Charles James Cullingworth, M.D. *Other Members of Committee*: *John Augustus Ball, M.B.; Julius Dreschfeld, M.D.; Charles Edward Glascott, M.D.; *Francis Hepworth; Thomas Jones, M.B.; *Daniel John Leech, M.D.; John Dixon Mann, M.D.; Siegmund Moritz, M.D.; *George William Mould; *James Ross, M.D.; *Henry Merrill Williamson; William Yeats, M.D. *Library Committee*: *Judson Sykes Bury, M.D.; *Siegmund Moritz, M.D.; *Frederick Armitage Southam, M.B.; *Thomas Windsor; *William Yeats, M.D. *Auditors*: *Frederick Morrish Pierce, M.D.; *George Arthur Wright, M.B. *Librarian*: William Dykes.

THE ROUEN SLEEPER.

At the present time (*Union Médicale*, December 25) there is to be seen at the Hospice-Général of Rouen a woman who has been in a state of cataleptic sleep during twenty days. Each night she wakes up for a few instants, partakes of some light food placed within her reach, and then during the rest of the twenty-four hours passes into a state of profound lethargy, attended with this curious peculiarity—that her arms and legs are in a state of absolute rigidity, so that, taking her by the head, she can be raised all of a piece. She is thirty-seven years of age, and unmarried. She is a very well-conducted woman, and has suffered from attacks of somnolence at irregular periods and of variable duration during the last fourteen years. In the intervals of the attacks she ate, drank, slept, and acted just like a person in good health, but became very nervous before her attacks of somnolence came on. During the sleep her respiration is very regular; her face is red and very hot, but her general aspect would not excite attention; but if an attempt be made to take hold of her arm, it is moved with great difficulty, and when liberated returns to its position by the side of the body with all the stiffness of a spring; the same with the legs. About half-past ten her limbs are observed to begin to move, and she sends forth feeble moans. This is the sign of her waking, and the broth and wine are put for her to take before she goes off to sleep again. She then sits up and takes her food without speaking, as if unconscious. For a few moments she recovers possession of all her natural functions, which are absolutely suspended during the day. For a few hours after she has relapsed into sleep her legs and arms can be moved, but by about four in the morning they have re-acquired their rigidity, which they retain until

the next night. Twice during the twenty days she has remained four days asleep without awaking for an instant, and, of course, without taking any food. It is worthy of note that she does not get thin in spite of her spare regimen.

SOMERSET HOUSE ANALYSES.

THE Sale of Food and Drugs Act, sec. 22, empowers the justices to forward the third sample of any article, declared by the local public analyst to be adulterated, to Somerset House, to be analysed there. It is not said that the decision of the Government officials is to be held as conclusive evidence of or against the fact of adulteration; it is the duty of the Court to decide on the whole weight of evidence adduced on either side. The chemists at Somerset House, indeed, enjoy the advantage of being perfectly disinterested parties; but it would be an insult to the personal and scientific character of other public analysts to imagine them capable of being prompted by unworthy motives. With all respect for Mr. Bell and his able staff of assistants, we must maintain that there are many public analysts of at least equal, and some of higher, reputation and skill: and that it behoves those who possess power in virtue of the accident of office to use it with discretion when reviewing the judgment of really eminent chemists. These remarks have been suggested by a statement laid before the Society of Analysts by Mr. Otto Hehner, whose authority on milk and butter analysis is second to none. An inspector having actually seen a woman adding water to her milk, purchased a sample on a subsequent day. Mr. Hehner finding the specific gravity solids (fat and ash) low—the solids other than fat being 8.37 instead of the 9.3 adopted by the Society of Public Analysts as the lowest percentage compatible with purity, and therefore as a safe standard,—pronounced the milk to be adulterated with 10 per cent. of water. Messrs. Bell and Lewin, examining the milk twenty-six days later, found the solids other than fat to be only 7.89, but estimated the fat and ash somewhat higher than Mr. Hehner had. On the strength of these results, and “after making the addition for natural loss arising from decomposition of the milk through keeping,” they declined to condemn it. Mr. Hehner, after noticing the uncertainty which always attends the estimation of fat on account of its liability to unequal distribution, strongly demurs to any attempt at “correction” founded on assumed fermentation. No doubt if the milk were exposed to the air, especially in warm weather, there might be a destruction of the lactin, but he considers any endeavour to estimate such a loss in milk contained in carefully sealed vessels as in the highest degree unsafe and unscientific.

LIVERPOOL MEDICAL INSTITUTION.

THE list of officers and Council for the ensuing year, adopted at the annual meeting on January 10, is as follows (those marked * are newly elected members):—*President*: *T. Shadford Walker. *Vice-Presidents*: Robert Gee, Benjamin Townson, *Edgar A. Browne, *Henry G. Rawdon. *Hon. Treasurer*: W. Macfie Campbell. *Hon. General Secretary*: Rushton Parker. *Hon. Secretary to Ordinary Meetings*: *Frank T. Paul. *Hon. Librarian*: J. M. Howie. *Council*: J. E. Burton, D. Dunlop Costine, J. N. Cregeen, J. Sibley Hicks, Arthur E. Hopper, *Alexander Dunbar, *James Lambert, *E. Mason Sheldon, *J. Kellett Smith, *Samuel Spratley, *John H. Wilson, *Arthur Wigglesworth. *Microscopical Committee*: W. Alexander, T. M. Braidwood, Henry Briggs, T. R. Glynn, Karl Grossmann, J. Sibley Hicks, John Newton, Rushton Parker, *William R. Parker, Frank T. Paul, *W. Whitford, Wm Williams.

PROFESSOR CHARCOT'S NEW CHAIR.

By a presidential decree issued January 2, 1882, consequent on the report of the Minister of Public Instruction, a new chair has been instituted at the Paris Faculty of Medicine, viz., that of Clinic of Diseases of the Nervous System. To this chair Dr. Charcot, Professor of Pathological Anatomy in the Faculty, has been, at his own request, transferred.

THE METROPOLITAN ASYLUMS BOARD AND THE FULHAM SMALL-POX HOSPITAL.

At the recent meeting of the Metropolitan Asylums Board, Surgeon-General Bostock, C.B., as Chairman of the Fulham Hospital Committee, reviewed the work which had been done at Fulham for the whole of the metropolis. He stated that the staff of officers and nurses engaged in the Hospital had numbered 295; and only a small number of these had had small-pox before entering on service at the Hospital. They were all revaccinated on joining, and, with the exception of four, who had slight attacks of the disease on first entering upon their duties, and before the vaccination had had effect, the whole staff had been free from disease. An important fact in connexion with the visiting of patients had been noted—that unprotected persons were attacked. In all, 1391 visits had been paid by 683 persons to 710 patients notified as “dangerously ill”; and 14 of the visitors were subsequently admitted, all of them coming from infected houses. It was ultimately resolved to close the Fulham Hospital for the time being altogether, as the action of the law in recent proceedings, by restricting its use to patients residing within a radius of one mile, entailed a great cost upon the ratepayers of the metropolis generally, for the especial benefit of the Fulham district only. The following motion was also moved by Mr. Bostock, and unanimously agreed to:—“That, having had the subject of the accommodation of the various hospitals of the Managers under consideration, the Committee beg to recommend that the whole of the Deptford Hospital be appropriated for the treatment of small-pox patients, and that the parishes and unions at present allocated for fever purposes to that Hospital be re-allocated to the Stockwell Fever Hospital, and that the Deptford Committee be authorised to make the necessary arrangements. Accordingly, the Committee further recommend that the Homerton Committee be authorised to remove cases of small-pox from those parishes and unions from which fever cases are at present removed, in the Managers’ ambulance.”

ALBUMEN WATER.—This has been recommended as a good substitute for milk and beef-tea, in cases where these substances disagree or cannot be obtained. The preparation is largely used by the French. It is made by dissolving the white of one or more eggs in a pint or two of water, sweetening with glycerine, and flavouring with orange-flower water. It may be taken cold and used *ad libitum*. It is an excellent food in typhoid fever and typhoid dysentery.—*New York Med. Record*, December 17 (from *Chemist and Druggist*).

CASE OF SLOW PULSE.—Dr. Baronowitz relates the case of a Mr. Green, of Farmingdale, N.Y., who is a small, thin man, in good health, and of very phlegmatic temperament. Two years ago, when first observed, he was the subject of strangulated hernia producing great pain and anxiety, and just before the operation his temperature was 103°, and his pulse 64, which was the highest number observed. Within four days after the operation it came down to 40. When at a subsequent period he was carefully examined it was found that the pulse was 42 in the recumbent posture, 43 when sitting, and 45 when standing. The heart was otherwise normal in its action.—*New York Med. Record*, December 10.

THE INDIAN MEDICAL SERVICE.

With regard to the rumours of an intended or proposed amalgamation of the Indian and British Medical Departments, our contemporary, the *Indian Medical Gazette*, says:—

"While we do not deny that a scheme of amalgamation is practical, and might in some instances be economical, we entertain strong doubts whether, on the whole, public interests in India would not suffer more than they would gain by such a change. However desirable economy may be, efficiency is vastly more desirable. Medical officers now come to India with a settled resolve to make India their home and field of labour during their working lifetime. They have thus a peculiar interest in fitting themselves for and devoting themselves to Indian work, which differs in many respects from British Army work or medical work in any other capacity or part of the world. They are encouraged and stimulated in their labours, often irksome and always arduous, by the general prospects of the Service, which are definite and have lately been in some respects improved, and by some prizes which are attainable by merit and industry. Will officers recruited for general service have the same interest in India and Indian work as now and heretofore? Will they have the same training and capacity for it? Will a limited tenure of Civil charges enable them to bring to bear on their peculiar duties the same enthusiasm, energy, and fitness as now? Will they be as competent to undertake special appointments? Will, in short, the Indian State and the Indian public, official and non-official, be as efficiently ministered to medically as now? We opine not. Amalgamation, with option of service elsewhere, and limited tenure of Civil charges, will, we fear, diminish interest, devotion, and capacity; and any economy effected by the abolition of the Indian Medical Service will be more than counterbalanced by a loss of efficient service, which cannot perhaps be measured by coin, but which is of infinite importance and value."

BERI-BERI.(a)

A FEW months since (June 4, 1881) we drew attention to some recent works and papers illustrating the curious affection which has received the name of beri-beri, a disease unknown in this country, but common enough, it would seem, in warm latitudes. A contribution by Dr. Pacifico Pereira, which appears in the Portuguese monthly medical journal of Rio Janeiro for July of this year, while noticing the writings of Lima, Oudenhoven, Simmons, and others, adds some further particulars upon points which as yet have been only imperfectly investigated.

Dr. Pereira observes that, owing to a variety of causes, post-mortem examinations in cases of beri-beri have been few and incomplete. In the first place, the disease is seldom fatal, and when it is so, the prejudices of the Brazilians forbid the pathological inquiry; and, even in cases where such examinations have been made, they have been limited to a macroscopical observation of the different organs, while the microscopical appearances have been generally omitted. Dr. Pereira thinks that a minute inquiry into the alterations produced in the different organs and tissues would furnish elements which, by their constancy and uniformity, might throw light on the nature and etiology of the disease. He accordingly gives, in the first place, as an example, a careful account of a post-mortem examination made on a man of thirty-six years old, in which, however, the naked-eye appearances were not very remarkable; but he also relates the details of the microscopical investigation, the results of which are more striking, especially as regards the heart. In this organ there was extensive fatty degeneration; the transverse striæ of the muscular fibres had disappeared completely in many instances, and were replaced by fatty granulations; in other cases the striæ were hardly visible, but were interrupted at intervals by granulations of a similar kind. Both in the muscular fasciculi nearest to the endocardium and in those joined to

the pericardium there was more or less advanced fatty degeneration of the muscular fibres. In the liver there was hyperplasia of the perilobular and interstitial tissue, with infiltration of fat cellules, and degeneration of the cells of the tissue of the liver itself, which showed the protoplasm filled with small fatty granulations.

In all the autopsies made by Dr. Pereira, which were six in number, a microscopical examination was made, and the most constant appearance was granular and fatty degeneration, more or less advanced, in different organs and structures, especially in the liver, the heart, and the kidneys, and in some cases in the diaphragm and the gastrocnemii muscles. It is to be noted that in the greater number of cases the brain and the spinal cord did not present any remarkable alteration, with the exception of some small hæmorrhagic foci scattered in the substance of the brain. These were visible even to the naked eye, and presented under the microscope alterations of structure in the tubes and cells, such as transformation of the myelin into a granular substance like fatty detritus. In one case only was there an alteration of the substance of the brain visible to the naked eye. On a horizontal section parallel to the base of the brain there was seen extensive softening in each of the hemispheres, very much advanced in the optic thalami and in parts of the corpora striata, and extending to the medulla oblongata.

Dr. Pereira, as the result of his own investigations and the perusal of the literature of the subject, offers the following opinions:—Beri-beri is a disease due to a combination of causes, which concur in producing a deficient oxidation of the blood, and consequently a constitutional "dystrophia," owing to the imperfect combustion and the incomplete elimination of the organic materials of the body, thereby impeding the physiological regeneration of the wasted elements of the tissues. It is a retrogressive and slow metamorphosis of the tissues, terminating in progressive and centripetal paralysis and asphyxia. It is the combined action of several causes, external and internal, inherent in the individual or the locality, due to climate, habits, trades, professions, etc., which constitutes the conditions of the production of beri-beri; but it appears indubitable that climatic, atmospheric, and telluric causes hold the principal rank in the etiology of the disease. Beri-beri is a disease of the inter-tropical zone, and especially of hot and humid localities, and on the sea the disease is developed in latitudes corresponding to the regions where it prevails epidemically at periods of great heat or excessive humidity. All experience seems to prove that the meteorological conditions producing beri-beri may be reduced to two—namely, high temperature and excessive moisture; and the combination of these two factors produces such a manifest influence on the disease, that an excess of one sometimes compensates for a slight diminution of the other. It is observed that in periods when continued and copious rains coincide with a high temperature, beri-beri is most prevalent. Dr. Pereira repeats the opinion which he published in 1868, that the heat of the climate in Brazil predisposes to beri-beri by modifying the processes of assimilation and its opposite, and diminishing the organic oxidation, and consequently the metamorphoses of the worn-out elements of the body into new forms; while, on the other hand, the prolonged suppression of the perspiration caused by great humidity of the atmosphere co-operates with the cause just mentioned in inducing the disease.

It should be mentioned, as throwing great light on the meteorological causes of beri-beri, that the malady prevails only during the hot and moist seasons, that it is absent during the winter, and that it reappears with the recurrence of the above climatic conditions, namely, heat and moisture; and that, as to the cure, the best therapeutical measure is change of climate, or, when this cannot be obtained, the patient must wait till the end of the summer, for the disease will often cease spontaneously with the supervention of cool and dry weather.

ADMINISTRATION OF MURIATED TINCTURE OF IRON IN CAPSULES.—Dr. Grimes writes (*Medical and Surgical Reporter*) that a most successful and agreeable way of giving the muriated tincture of iron is to drop it into an empty capsule. The cap is then replaced, and the dose swallowed without any trouble. Some water should be taken at the same time.—*New York Med. Record*, December 17.

(a) "Estudo sobre a Etiologia e a Natureza do Beri-beri." Pelo Sr. Professor Pacifico Pereira. Transcribed from the *Gazeta Medica da Bahia* into the *União Medica*, July and August, 1881.

FROM ABROAD.

OPERATIVE TREATMENT OF VARICOCELE.

DR. LEVIS, Surgeon to the Pennsylvanian Hospital, observes (*Philadelphia Med. Times*, November 5), in a paper read at the Philadelphia Medical Society, on "The Treatment of Varicocele by Excision of Redundant Scrotum," that cases of this disease are usually treated by the palliative of a suspensory bandage to be worn constantly. This has arisen from the conviction that the ligature of the spermatic veins is a dangerous operation, and always permanent in its results. Dr. Levis, however, does not believe the risk is great enough to justify the general avoidance of the operation, and has for many years been in the habit of performing it in cases of sufficient severity and gravity. Still, in the general run of cases of varicocele he has recommended only the palliative treatment. He has now, however, adopted a procedure which seems to be quite efficacious, while it appears to be free from all risk. In the varicose enlargement of the spermatic veins the dartos becomes, by continuous over-extension, relaxed, and fails to give support to the testis. In cases of large dilatation and long continuance, the integument becomes much attenuated and pendulous, and occasionally the veins in and underlying the skin are much enlarged. This relaxed, pendulous, and attenuated state of the scrotum must have long ago attracted attention and suggested a remedy. Astley Cooper seems to have been the first to adopt the procedure of excision, and his example was followed by others. The results reported seem to have been always satisfactory, but the operation has long been discontinued, so that modern treatises on surgery scarcely notice it. This has probably arisen from the want of a proper method of procedure. Until recently operating by subcutaneous ligature. Dr. Levis has now found that a clamp invented by Dr. M. H. Henry, of New York, enables the operation to be much more effectually executed. The grasping portion of the serrated blades of this clamp is about ten inches long, and is curved in accordance with the raphe. The handle of the clamp is a spring, which closes the blades, and additional clamping power is obtained by a screw adjusted at each end. There is also a detachable guide, which may be used at the option of the operator to direct and make uniform the line of excision. Strong scissors or a knife may be used to remove redundant integument. The amount of integument to be removed can best be determined by temporarily adjusting the clamp while the patient is in the standing position, and it may be conveniently outlined on the moistened skin with an aniline pencil. The extent of the excision must vary with the requirements of the case; but it should be sufficient to secure the testis for a time at a higher position than that of the sound side. The error most likely to occur is in not removing enough. In order to prevent the inclusion of anything but integument in the clamp, the scrotum should be held between the operator and the window, when uniform translucency will be exhibited up to the border of the tunica vaginalis. The excision should embrace a portion of the anterior and inferior parts of the scrotum, fixing the clamp to the raphe, and drawing the integument into its grasp entirely from the affected side. The effect of making the excision on the raphe is to locate in the median line the very small linear cicatrix that remains, so that eventually all disfigurement is avoided. The incision should reach always to the most dependent part of the scrotum, so that, if inflammation with suppuration should follow, drainage would readily take place. No need of this has, however, occurred in the cases operated upon by Drs. Levis and Henry. Metallic ligatures, to hold the edges of the wound in close and accurate apposition, may be placed in position before the excision is made, but it is as well to insert them after the section is completed and the guide removed; but they must always be introduced while the clamp remains in position. Interrupted sutures are inserted very near together; and, with a view to close apposition, and to insure against hæmorrhage, they should not be more than a quarter of an inch apart. No hæmorrhage has followed the operation in any of Dr. Levis's cases. As dressing, the scrotum is simply covered over with a piece of lint saturated with

carbolic oil or cerate of 5 per cent. strength. This is held in position by the ordinary pelvic and perineal bandage, somewhat tightly applied to prevent hæmorrhage and to avoid oedematous swelling of the loose connective tissue of the scrotum. The daily carbolic after-dressing may be held in place by an ordinary suspensor.

REMOVAL OF FOREIGN BODIES FROM THE EYE.

In a lecture on this subject, Prof. St. John Roosa (*New York Med. Record*, 1881, No. 16) observed that his present object was confined to the consideration of foreign bodies on the conjunctiva and cornea. This is a subject of vital importance to the general practitioner, as cases may occur at any moment, and failure to treat them adroitly may much injure his reputation. Treating first of the conjunctiva, he dwells much on the importance of being able to evert the upper lid properly, so as to expose the upper conjunctival sac completely. He also adverts to cases in which severe and prolonged conjunctival inflammation is kept up by a foreign body, whose existence has not been discovered or even suspected, for weeks or months. One very noticeable feature in such a case, which should immediately arouse suspicion, is that, however intense the inflammation may be, it is confined to one eye; for catarrhal conjunctivitis usually affects both eyes at once. It is entirely different with regard to inflammation of the cornea, the sclera, or the retina, when we may have one eye affected and the other quite normal; but when we find only one conjunctiva suffering we should always suspect the operation of some local cause. Removal of foreign bodies from the lower conjunctiva is easy enough; but everting the upper eyelid requires some dexterity and practice.

"In the first place, the patient, so far as possible, should be in a comfortable position, seated in a chair with the head well supported. With a foreign body in the conjunctival sac, he is in distress, and his eyeball is not entirely under his control. He is not as able to respond to your requests as to where he should look as though it were not there. Get the head, therefore, properly supported, and then with the thumb press the integument of the lid against the eyebrow, so as to put it upon the stretch, and tell the patient to look down—not to turn the head down, but to turn the eyes down. Then catch the eyelashes and edge of the lid with the fingers of the other hand, and turn the lid quickly over the thumb; in the meantime the patient looks constantly down. You see how readily, by this simple manipulation, I have succeeded in exposing the conjunctiva; and yet, unless you have practised these movements somewhat, you will be mortified when you make your first attempt to perform this simple operation with lookers-on around you. An intelligent assistant will be of advantage—and there is scarcely any place in which you cannot secure one—to hold the head. His determination must be that the patient shall not turn his head down, but shall look down, and thus turn the eyes downwards. Next, how are you to remove the foreign body? How shall you get rid of that little black speck. It is usually a simple matter, but there is method even here. If it is a lady, she will have her handkerchief, and she will feel better satisfied if you use that rather than your towel, for she will not feel sure that the towel is clean. Remove the body, then, but *do not throw it away*. Show it to the patient, and be sure that he recognises it. And why? The little shallow depression which the foreign body made in the conjunctiva will cause a sensation of discomfort, and sometimes give rise to the same symptoms that existed before the removal of the foreign body. It is well, under such circumstances, to have the proof of what you have done. In the majority of cases, however, the feeling of comfort is so great, the relief so instantaneous, that there is no fear of complaint of non-removal. You will seldom need any instrument for the removal of a foreign body from the conjunctival sac, beyond the hands and a delicate piece of cambric or a smooth, well-worn towel." Alluding to a case in which the patient persistently insisted that a foreign body was in the eye, which the closest examination failed to detect, Dr. Roosa says:—"What was the cause of his sensations? An attack of conjunctival catarrh was beginning. Many of these cases begin very suddenly, as though something struck or entered the eye, and you must not be deceived and take it for granted that there is a foreign body simply because the patient has a sensation as though some rough substance were pressing on the cornea."

Foreign Bodies on or in the Cornea.—Foreign bodies are sometimes buried deeply in the layers of the cornea, but they usually lodge in the epithelial layer. When the body lies on the cornea its removal is very simple. Secure the head of the patient; hold the eyelid against the ball, so as to fix it, with the left hand; and then with the other, by means of a delicate blunt steel in a handle, tilt the body off the cornea. An ophthalmostat, invented by Dr. Townsend, of Newhaven, is very useful for steadying the eyeball; and this may be extemporised by wire, being a simple ring, which presses on the eyelids and keeps them apart and against the ball. The steel spud is not essential for the removal—a bit of wire, the head of a pin, or even a piece of wood, will answer very well. A simple pushing motion will shove the body into the conjunctival sac, or it is lifted entirely out by the spud. If the body has found its way into the epithelium, and is lying there, a good light is required, for the particles are sometimes so very small that very accurate examination is required to ascertain whether a foreign body is present, and its exact locality. Sometimes the beginner is misled (especially if he has been told that a foreign body is there) by the black spots upon the iris, which are seen through the perfectly transparent cornea. If the body is small, a double convex lens may be required for its detection. A spud or cataract needle should then be used to scrape away the epithelium, so that the body may be lifted out of its position. The operation may be somewhat painful, and to get free access to the eyeball an instrument may be required to keep the lids apart.

"There are no exigencies equal to these encountered in a country practice, and the ready wit which comes from a first-class country practitioner is not unfrequently essential for such an operation as this. The epithelium of the cornea is sensitive; it is well supplied with nerves; but after removing the foreign body you can scrape without causing much pain. But suppose that it has gone further; suppose it has passed through the layers of the cornea, and you apprehend either that it has entered the anterior chamber, or that if you pick at it much it will drop in there. What shall be done then? Here you reach the boundary line between the general practitioner and the surgeon and the specialist. If you are a physician, and not a surgeon, you had better let these cases alone, or get some one to assist you. If the body is so far embedded in the cornea as to be in danger of dropping into the chamber, it is a matter with which only a good surgeon should meddle. How should he interfere? He may often remove the foreign body without entering the eyeball; but only by using the most delicately constructed forceps, handled with a most steady hand; and the manipulation should be done with the patient under ether. But supposing that the surgeon becomes convinced that he cannot remove it without entering the eyeball, how shall he then proceed? I think that Dr. Agnew's method is the only one worth consideration, and that consists in passing a Beer's knife through the cornea behind the foreign body. The knife thus passed in forms a bed upon which you may safely work. But these are rare cases, and ordinarily no harm will come from waiting until the assistance of a surgeon can be secured. After the body has been removed, the eye should be treated as if it had undergone a considerable operation."

SIMPLIFIED ANTISEPTIC DRESSING.

Dr. Little, Professor of Surgery in the University of the City of New York, in a paper entitled "A Modification of Lister's Antiseptic Dressing," inserted in the December number of the *New York Medical Journal*, observes that although he has full confidence in Prof. Lister's antiseptic method, he, like many others, has long recognised the great difficulties which the general practitioner has in carrying out its minute details, and has been hoping for a more simple procedure. Besides the difficulties they have to contend with in Lister's methods, country surgeons have great trouble in obtaining the antiseptic gauze in an effective condition, so soon does it lose its antiseptic power. Moreover, the various materials required are too expensive for general use for some classes of patients liable to wounds and injuries. Attached to a large factory wherein accidents to the hands and fingers are of frequent occurrence, Prof. Little has, during the last six years, had recourse to a simplified form of dressing with satisfactory results. He washes the

wound in a solution of carbolic acid of one to twenty, and then covers the parts with a thick layer of borated cotton (much of this is made with a solution of borax instead of boracic acid; made with this last, the cotton on being burned gives out a bright green colour, little of which is seen when borax has been employed), over which a gauze bandage is snugly and evenly applied. At first he used bandages made of antiseptic gauze, but for the past three years he has had them made of plain, uncarbolicised cheese-cloth, these thin bandages distributing the pressure more evenly over the cotton, and being more easily saturated with fluids than those of unbleached muslin. The patient is told to keep the outside of the bandage wet with the carbolic acid solution at 1 per cent. The parts are kept at rest, and the dressings may be left undisturbed for several days, unless there is pain, rise of temperature, or discharge through the dressings. The patient should be instructed to loosen the bandage at once if any pain occur.

"In many cases where rubber drainage-tubes have been used, they may be removed at the second dressing; and if catgut has been used for sutures, this second dressing can be allowed to remain on for an indefinite period. In a number of cases of lacerated wounds I have allowed the first dressing to remain on until the wound has entirely healed. In these cases the external use of carbolic acid was discontinued after the fifth or sixth day, and the dressings would become hard and dry, the wound healing, as it were, 'under a scab.' . . . The value of cotton-wool as an antiseptic dressing is, I think, not sufficiently appreciated by the profession. Used in the way I have indicated, it seems to me to be as perfect an antiseptic dressing as the gauze and other materials recommended by Prof. Lister, while it is free from the objections that pertain to this, and which materially hinder their use by the general practitioner. If applied in sufficient quantities around an open wound, it protects this from the 'floating matter of the air,' which is supposed to be the real incitor of suppuration. It is the best germ-filter known to us. I have used the very excellent borated cotton made by Mr. am Ende, of Hoboken, containing 15 per cent. of boracic acid. Keeping it wet externally with the solution of carbolic acid renders it more surely antiseptic. To insure success in the cases in which this dressing is used, full precautions as to rendering the instruments, sponges, and the hands of the surgeon aseptic, and the use of drainage-tubes if necessary, should not be neglected. Catgut or torsion should be used to arrest hæmorrhage. The spray may be resorted to, if thought necessary, at the second dressing. I now usually apply carbolicised oil, of the strength of one to twelve, to the wound, to facilitate the removal of the cotton, which is otherwise apt to adhere after the first dressing. I would state, in conclusion, that my experience thus far seems to show that this simple dressing, so easy of application, is as thoroughly antiseptic as Prof. Lister's appliances, and that it has the very decided advantage of doing away with the necessity for using costly 'protective-oil-silk,' 'mackintosh cloth,' 'carbolicised gauze,' etc., and gives us a dressing that can be used by anyone under any circumstances, be it in city or country. The borated cotton is easily kept for months unchanged. The fact that the dressing need not be done oftener than once in several days will especially commend it to the country practitioner."

GRESHAM LECTURES ON MEDICINE.—These lectures will be delivered in Gresham College, Basinghall-street, E.C., by the Gresham Professor of Medicine, E. Symes Thompson, M.D., F.R.C.P., "On the Spinal Cord." Lecture I., on Tuesday, January 17, on the Anatomy of the Spine; Lecture II., on Wednesday, January 18, on the Physiology of the Spinal Cord; Lecture III., on Thursday, January 19, on the Pathology of the Spinal Cord; and Lecture IV., on Friday, January 20, on the Management of Spinal Disease. The lectures are illustrated by diagrams (lime-light), are free to the public, and commence each evening at six o'clock.

CHELSEA HOSPITAL FOR WOMEN.—Prince Leopold (Duke of Albany) has become the Patron of the Chelsea Hospital for Women, King's-road, and the Princess Frederica of Hanover, the Duchess of Cambridge, and the Princess Mary of Teck have given permission for their names to be added to the Patronesses of the Hospital.

REVIEWS.

Manual of the Principles and Practice of Operative Surgery.
By STEPHEN SMITH, M.D., Surgeon to the Bellevue and St. Vincent Hospitals, New York. London: Sampson Low, Marston, Searle, and Rivington. 1881. Pp. 689.

THE manual before us is an enlarged and improved edition of Dr. Stephen Smith's "Handbook of Surgical Operations," published in 1862. The first edition was designed for military practice only, while the present one embraces the general operations of surgery in civil practice as well. Such a book must always be of service, and each new edition as it appears becomes practically a new work, so rapid are the advances in surgical practice, and so active and productive the army of surgeons engaged in it.

The operations are arranged according to the physiological systems—the osseous, the muscular, the circulatory, etc.; while a final chapter is devoted to amputations, deformities, and compensative appliances for "the extremities."

The work bristles with bibliographical references, but they are most meagre references, including nothing but the name of the author cited. Thus, for instance, in speaking of "parenchymatous or purulent synovitis," a reference is made to "T. Billroth," but as to which special work the reader is to refer, no mention whatever is made. Again, in the same paragraph, our author says, "The antiseptic treatment is most serviceable in such cases; every collection of pus must be evacuated, all septic matters removed, and cavities cleansed with carbolic solutions, and antiseptic dressings applied." Then we are referred to "J. Lister." How far Lister will care to have this bare statement regarded as his method of treatment, we do not know.

Bibliographical references are of the greatest use to readers of surgical works, provided they are explicit and accurate, but not otherwise; and paucity of detail and want of explicitness are not here confined to the bibliography alone. The details of the operations are often scanty and insufficient. Thus (page 239): "The subclavian and common carotid arteries may be ligated by the following operation:—Place the patient in the position for ligature of the innominate; make an incision three inches in length through the integuments, along the space separating the clavicular and sternal attachments of the sterno-cleido-mastoid muscle. This interval is marked by a depression above the clavicle, at the articulation of the clavicle and sternum; flex the head; slightly separate the internal portion of the muscle, *a*, from the external, *b*; divide the sterno-hyoid and thyroid on the director; the innominate, *h*; the common carotid, *e*; the pneumogastric, *d*, and its branch, the recurrent laryngeal; the origin of the subclavian, *g*, and its branches, the vertebral, *c*, and inferior thyroid, are now readily seen." We cannot but regard the above instructions as all too insufficient for a surgeon who is about to operate for the first time in such an important part of the body as the root of the neck. We would also ask, is it either desirable or necessary that all the above-mentioned structures should be dissected out and shown at the operation on the living body? In the dead-house it would doubtless be very instructive. The letters refer to a small uncoloured diagram, which might, however, serve for almost any part of the body. We have shown this drawing to two surgeons, without allowing them to see the context; they neither of them guessed aright the first time, and each mentioned a different part.

The work is illustrated by no fewer than 733 woodcuts. Many of them are really excellent, and everything that can be desired; but others, and especially those in the chapter on the surgery of the arteries, are open to considerable improvement. We mean in this direction: a sufficiency of surrounding should always be given to enable the surgeon at a glance to see what part of the body is under discussion. The outline of a clavicle, or an episternal notch, or a sterno-mastoid muscle, or the addition of a knee, or a foot, would, in our estimation, in many cases greatly enhance the value of the plates.

The work, nevertheless, contains a large mass of very useful information. Its scope is very large, and includes something of almost every possible operation. We shall look forward to future editions in the hope that they will be considerably improved in the direction we have indicated. The get-up of the work is most creditable to its publishers.

GENERAL CORRESPONDENCE.

THE RESOLUTION OF THE COLLEGE OF PHYSICIANS.

LETTER FROM DR. R. E. DUDGEON.

[To the Editor of the Medical Times and Gazette.]

SIR,—On December 27 last the College of Physicians, under the presidency of Sir W. Jenner, unanimously passed a resolution proposed by Dr. Wilks to the following effect:—"The College considers it desirable to express its opinion that the assumption or acceptance by members of the profession of designations implying the adoption of special modes of treatment is opposed to those principles of the freedom and dignity of the profession which should govern the relations of its members to each other and to the public. The College therefore expects that all its Fellows, Members, and Licentiates will uphold these principles by discountenancing those who trade upon such designations."

The acknowledged aim and object of this resolution was to pass a censure upon those members of the profession who consider the homœopathic therapeutic rule the best guide for the selection of remedies in their treatment of the sick. This we learn without any doubt whatever from the discussion or conversation that ensued among those present at the meeting. But the resolution has no application to the practitioners aimed at, though it may perhaps hit some practitioners it was never intended for. Practitioners who have studied and who practise homœopathy in preference to any other method, when they meet with cases for which it is adapted, neither assume nor accept the nickname of "homœopath" that has been bestowed on them, and which is commonly applied to them for the sake of brevity and to avoid circumlocution; just as we speak of antiseptic surgeons, meaning those who commonly adopt the antiseptic treatment, or as we call one who makes a speciality of electricity a "medical electrician." But that is quite a different thing from trading upon a particular designation. We cannot conceal from our colleagues or the world that we have a faith in the homœopathic method, for every prescription we write betrays our therapeutic faith. Nor do we affect any concealment; on the contrary, we endeavour in every legitimate way to convince our colleagues of the excellence of the homœopathic method, and we would justly incur their censure did we keep that method a secret to ourselves. And is not this precisely what the best men of the profession do when they know of a good method or a good remedy? Did Mr. Lister, or his predecessor Dr. Déclat, keep the antiseptic method to himself? On the contrary, he has put it so persistently before the profession and the public, that the method is now very commonly called "Listerism." Do those surgeons who practise this "Listerism" trade on the designation? Certainly they do so, quite as much as those who practise homœopathy. Dr. Wilks is disgusted that a patient left him for another doctor because the latter "had a principle guiding his practice." In like manner a surgeon who did not believe in antiseptic surgery might feel disgusted at being abandoned by a patient who preferred an antiseptic surgeon.

The resolution passed by the College of Physicians has thus completely missed its aim. If I were a Fellow, Member, or Licentiate of the College, I could subscribe to this resolution with perfect good faith, though I am one of those against whom it is aimed. I neither assume nor accept any other designation than that of "physician," and as a physician I yield to no one in upholding "those principles of the freedom and dignity of the profession which should govern the relations of its members to each other and to the public." The resolution of the College applies far more to the tribe of specialists in the profession than to those who endeavour to give their patients the benefit of the discovery of Hahnemann. The oculists, aurists, gynecologists, electricians, *et hoc genus omne*, trade upon their designations much more than we do. They, of all members of the profession, have a right to complain of the milk-and-water resolution of the College. "Our withers are unwrung"; the resolution does not affect us.

Why did not the College adopt Dr. Bucknill's amendment? That at least went to the root of the matter. In declaring that "no competent medical man can honestly practise the homœopathic system," it spoke out the senti-

ments of the great majority of the profession. But there were some objections to passing such an amendment. It so happens that a goodly number of the members or licentiates of the College consider the homœopathic to be the best therapeutic rule out, and practise accordingly. To doubt the competency of those the College had admitted into its bosom after testing them by examination, would have been to condemn themselves; and to accuse them of dishonesty might have been to bring themselves within measurable distance of an action for libel. The condemnation to a heavy fine of several German doctors who lately indulged in similar imputations on their colleagues who practised "the so-called homœopathic system" was not very encouraging to those who wished to impugn the honesty of certain of their colleagues. So Dr. Bucknill's amendment was dropped hastily like a hot potato.

As for consultations between those who know and use the homœopathic method and those who do not, I quite agree with Sir W. Jenner that they are to be deprecated. Like him, "I go to do the patient good, to ease or prolong his life," and I should be very unwilling to relinquish what I hold to be the better treatment in order to adopt what I consider the worse. I do not admit that Sir W. Jenner has any monopoly of the wish to do the patient good, but if his good wishes are never disappointed, if the patient about whom he is consulted is never rather the worse than the better for his advice, then he is a much more successful consultant than any I have yet heard of.

I am, &c., R. E. DUDGEON.

53, Montagu-square, January 10.

REPORTS OF SOCIETIES.

THE OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 7, 1881.

Dr. MATTHEWS DUNCAN, President, in the Chair.

OVARIAN TUMOUR WITH ADHERENT FALLOPIAN TUBE.

MR. KNOWSLEY THORNTON showed a portion of an ovarian tumour with the Fallopian tube adherent by its fimbriated extremity to the opposite ovary, which was so completely grasped that it had partly atrophied. It demonstrated perfectly an occurrence which he had been led to suspect by a series of cases in which both ovaries had been found to be involved in one tumour, the respective tubes and ligaments forming two distinct pedicles. He thought that the tube, elongated by the growth of the cyst, was carried into contact with the opposite ovary, and its fimbriæ fell over this ovary.

MICROSCOPIC SECTIONS OF BLIGHTED OVUM.

Dr. HERMAN showed microscopic sections of the specimen he had shown at the last meeting, made by his colleague, Mr. McCarthy. One showed the membranous wall of the translucent sac, which was sheathed with epithelial cells, such as are seen in amnion; the other showed a section of the minute solid body, one line in length, the mass of which consisted of undifferentiated cells like those of the very early embryo.

CONJOINED TWINS.

Dr. PERCY BOULTON showed a specimen of conjoined twins. The children were females, and were united in front by the thorax and abdomen. The first child presented by the face in the third position. The second stage lasted six hours, and Dr. Boulton was then sent for by the midwife in attendance. The first head was delivered by forceps, and then a monster was diagnosed. Traction was made, and the shoulders, arms, and trunk of No. 1 were brought down, then the four feet, then the rest of No. 2 as a footling, evolution taking place round the pubes as an axis. The children were stillborn, measured fourteen inches, and weighed five pounds. The mother made a good recovery.

FIBRO-CYSTIC TUMOUR.

Dr. HEYWOOD SMITH showed a tumour removed from a patient, aged fifty-five. Sir James Simpson had diagnosed a fibroid tumour of the uterus, more than twenty years before. Lately a cyst had developed, and Dr. H. Smith diagnosed ovarian cyst with fibroid of ovary. At the operation, the cyst was found to be an offshoot from the solid

tumour, and the whole tumour was removed, the pedicle being very short and hard, close to the right cornu of the uterus. There was nothing to distinguish the tumour from a fibroma of the uterus.

Mr. DORAN did not understand why pathologists were so reluctant to recognise fibro-myoma as possible in the ovary. The stroma contained many cells with long nuclei, closely resembling the muscular fibre of uterine tissue, and the ovarian ligament was undoubtedly muscular. He had seen clear cases of ovarian fibro-myoma, small and large.

CASE OF TUBAL PREGNANCY.

The PRESIDENT showed a right Fallopian tube pregnancy. The laceration was very long, measuring an inch and a half. The patient consulted Mrs. Falconer, at the Stirling Infirmary, thinking herself four months pregnant. The foetus is of about five weeks only. She complained of weakness and pain in belly. She had syphilitic psoriasis, was anæmic, and had been losing blood repeatedly per rectum. She died in thirty-six hours. The abdomen contained large masses of clotted blood.

PREGNANCY COMPLICATED WITH EPITHELIOMA.

Dr. EDIS asked for an expression of opinion on the following case:—A woman, aged twenty-nine, married seven years and nine months, mother of one child eighteen months old, came as out-patient on account of pains and sanguineous discharge, and was found to be six months pregnant. The whole of the cervix, and the posterior wall of the vagina down to within an inch and a half of the perineum, was affected with epithelioma. The cervix was dense, nodulated, rough, but did not bleed very readily. The whole disease could not be removed by the Porro-Freund operation, and the question was whether to induce premature labour, or to let the patient go to term, and perform Cæsarian section.

Dr. WILTSHIRE thought that if the disease had extended down the posterior vaginal wall nearly as far as the perineum, Porro's operation would fail in removing it. He mentioned a case of excessively dense cancer of the cervix, in which he performed Cæsarian section, some years ago, but in which Porro's operation would have been admissible had it been then in vogue.

Dr. HERMAN said that published cases showed that the consistence of the growth was of more consequence, as regards delivery, than its extent. Living children had been born after quick and easy labours, although the whole circumference of the cervix and vagina was cancerous; and, conversely, cancer of small extent might, if very hard, cause great obstruction.

Dr. PRIESTLEY agreed with Dr. Herman that the consistence of the growth was of most importance. He did not think the case suitable for Porro's operation, as the child was not viable at the sixth month, and the mother's life could hardly be prolonged by it. He would chiefly regard the child's life, and would be disposed to let the woman go to full term, or nearly so, and then act according to the amount of obstruction found to exist.

ON THE NORMAL AND PATHOLOGICAL ANATOMY OF THE GANGLION CERVICALE UTERI.

Dr. JASTREBAN (St. Petersburg) contributed this paper. The author concluded that the so-called "ganglion cervicale" of Frankenhauser was in reality a plexus consisting of many ganglia found at the junction of the twigs from the sacral nerves with those of the hypogastric plexus. From microscopic examination of the ganglion he inferred that there was a potent connexion between the diseases of the plexus and those of the uterus; and that on disease of the ganglia most probably depended functional disease of the uterus in the different stages of labour.

THE TREATMENT OF SPASMODIC DYSMENORRHOEA AND STERILITY BY DILATATION OF THE CERVICAL CANAL WITH GRADUATED METALLIC BOUGIES.

Dr. GODSON gave a history of the introduction of the above method more than fifty years ago by Dr. Mackintosh, of Edinburgh, and of the various phases through which it had passed, having fallen into disfavour, until recently its claims had been advocated by Dr. Matthews Duncan. The author of the present paper also gave notes of five successful cases. A statement was made of all the cases of dysmenorrhœa associated with sterility which the author had treated, pregnancy having followed in five, or one-half of

them. The dysmenorrhœa was of that kind known as spasmodic or obstructive, characterised by severe colicky pain in the hypogastric and sacral regions, either before the menstrual flow or coincident with it. The author preferred to drop the title "obstructive," as he knew no evidence to prove that there was a want of patency of the cervical canal, and Dr. Duncan had passed a probe into the uterus at the height of the pain without meeting with obstruction. He believed that the spasm of the uterine muscular tissue was of itself sufficient to give rise to the severe pain, without any obstruction. Case 1, aged thirty-two, married four years, applied on account of sterility; its association with dysmenorrhœa was then elicited. On two occasions, at intervals of two months, several dilators were passed, the highest No. 14. The dysmenorrhœa was relieved after the first menstruation; pregnancy occurred three months after the second. Case 2, aged twenty-nine, married eight years, sterile, applied for severe dysmenorrhœa. Two dilators only, Nos. 7 and 8, were passed, producing very severe pain. The next period took place without pain, and was followed by pregnancy. Case 3, aged twenty-two, married two years, complained of spasmodic dysmenorrhœa. Dilators 7 and 8 were passed; three periods comparatively free from pain followed, then pregnancy. Case 4, aged twenty-four, sterile, married two years and a half, applied for severe dysmenorrhœa aggravated by marriage. Passed bougies Nos. 7 and 8 only a few days before a period, which, when it occurred, was in no respect freer from pain. Two periods followed with hardly any pain, and then pregnancy. Case 5, aged twenty-five, married three years and a half, sterile, applied for dysmenorrhœa. Dilators 6, 7, 8, 10, and 12 were passed. One period occurred without pain, and then pregnancy. The author concluded—1. That the method was simpler and safer than any other proposed; 2. That the dilatation might be performed with safety at the house of the consultant; 3. That a very small amount of dilatation was necessary; 4. That the operation should be performed within a week or ten days after a period; 5. That it should be done not on successive days, as hitherto recommended, but all at once, that the first bougie should be a small one, and that there should not be sufficient difference between the size of successive bougies to cause a splitting of the mucous membrane; 6. That pregnancy appeared to occur on account of the dilatation having cured the conditions on which the dysmenorrhœa depended. In none of his cases was there either stenosis or constriction of the canal by acute flexion. The theory, therefore, of permanent constriction being discarded, in what did the impediment lie? Was it a spasmodic constriction causing ejection of the semen? Of the five cases in which the sterility was not cured, one, a hospital case, was lost sight of; one was relieved of her dysmenorrhœa for a time, but, it having returned again as badly as ever, was treated by an intra-uterine stem, and cured. Of the remaining three, in all was the dysmenorrhœa relieved, but pregnancy had not yet resulted.

Dr. GRAILY HEWITT had found that in the large majority of cases relief of dysmenorrhœa was obtained by simply maintaining the canal of the uterus in a state of straightness. In cases where the uterus was unduly soft and pliable, dilatation was not necessary; but in long-standing cases dilatation was a great assistance in the treatment. He had used a two-bladed dilator, acting on the principle of a glove-stretcher. This instrument produced the same kind of effect as the dilators now exhibited. He had cured many cases of sterility, some of ten, or even thirteen, years' standing by the above treatment. In regard to diagnosis, cases of very soft flexed uterus were sometimes overlooked, owing to the apparently easy passage of the sound.

Dr. HEYWOOD SMITH said that the author had referred to the President's experiments on the flow of fluid through bent tubes, but the substances used in such experiments had no analogy to the uterine canal, which was of varying thickness, and of such a substance as rendered its canal obnoxious to impressions upon its inner surface from any flexion. His father, when assistant lecturer to Dr. Rigby at St. Bartholomew's in 1836, had used Mackintosh's bougies for the treatment of dysmenorrhœa and sterility, and, since the foundation of the Hospital for Women, that procedure had been practised with the greatest possible advantage. He thought it best to have the sounds straight in their uterine portion, not curved, like the dilators shown.

Dr. CARTER had obtained exceedingly satisfactory results from the use of graduated sounds, both as regards dysmenorrhœa, and sterility when it accompanied it. When the flabby condition of the uterus mentioned by Dr. Hewitt existed he found that dilatation alone was not sufficient, and in such cases he had employed an intra-uterine stem with the best results. He had found it better not to pass the sound within four or five days of a period.

Dr. ROUTH said that he did not see what advantage the method had over that of dilatation, first by tangle tents, and afterwards the employment of an intra-uterine pessary. A plan analogous to Dr. Duncan's had been in use in early days at the Samaritan Hospital, but it had been proved that it was not so free from danger as stated to-night, and it had been abandoned. When such men as Sir James Simpson and Dr. Marion Sims had discarded the dilators because of their danger, clearly they should not be lightly resumed. The effect was transitory unless pregnancy occurred very soon after, and the pain induced was sometimes very great. In the case of flexion it was often difficult to pass even a tent sound, and the use of a straight dilator in such cases would be liable to set up inflammation. With either Dr. Wynn Williams's pessary or his own a uterus was not only kept dilated, but it reduced the uterus. The comfort of such instruments was such that women did not like to part with them, but he always removed them after eight or twelve months, and pregnancy frequently followed.

The discussion on Dr. Godson's paper was then adjourned until the following meeting.

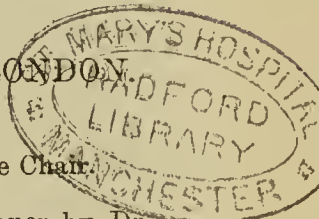
EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 7, 1881.

GEORGE BUCHANAN, M.D., President, in the Chair.

Dr. T. SPENCER COBBOLD, F.R.S., read a paper by Dr. Wykeham Myers, entitled "Observations on *Filaria Sanguinis Hominis* in South Formosa." In it the author gave full details of his observations of patients under his care suffering from filarial disease, and of experiments concerning the effect of different antiseptics and parasitocides on the worms, the results being in the main confirmatory of those of Manson in China. The periodic appearance and disappearance of the filarial embryos in the blood was especially dwelt upon, and the author was inclined to ascribe their disappearance to a solution and destruction of the parasites, rather than to their retirement into one of the internal organs, and their resting there during the day. Experiments on monkeys made to drink water containing mosquitoes which had previously ingested filariæ gave negative results.

Dr. COBBOLD next read a paper "On Filaria and other Parasites in relation to Epidemics and Epizootics." After referring to the labours of Manson, Bancroft, Sonsino, and others, which were of great importance in relation to the public health, he alluded to some researches of his own on the parasites infesting the elephant and ostrich, and stated that the facts set forth in his paper led to the conclusion that "flukes" were not the only entozoa capable of fatally victimising large and valuable animals. The paper of Dr. Myers was valuable as a confirmation, by an independent and competent observer, of the results obtained by Manson, and first communicated by Dr. Cobbold to the Quekett Microscopical Club on February 27, 1880, and of the observations subsequently made by Dr. Stephen Mackenzie, and communicated to the Pathological Society this year. In consequence of these, some of the scepticism expressed in relation to filarial questions has already disappeared, and sooner or later the important part played by these parasites in the production of disease would certainly be acknowledged. There was no longer any foundation for the continued incredulity of some observers here and abroad in reference to the latter question. The remarkable periodic appearance and disappearance of the parasites in the blood, and the adaptation of this to the habits of the mosquito, could not be looked upon as an accident. In reference to Dr. Myers' hypothesis that there is a diurnal solution of the micro-filaria that escape the clutches of the mosquito, Dr. Cobbold saw nothing impossible in the disintegration and absorption of the minute dead worms. On the other hand, he thought that such an absorption-process would hardly



overtake in a few hours the residual millions left by the mosquitoes. He believed that the micro-filariæ, under ordinary circumstances, steadily increased in numbers when no insects interfered, and that their maximum numerical expression was in strict correlation with the reproductive vigour of the parent worm or worms, which might live for many years. Dr. Cobbold next dealt with several prevalent misconceptions and misstatements respecting filariæ, referring not merely to matters of inference, but to questions of absolute fact. The statement, made by a writer in a recent number of one of the medical journals, "that the young filariæ develop in the mosquito into sexually mature worms," is incorrect. Throughout the whole range of helminthology nothing of the sort has been recorded; whether we deal with *Cyclops* as the bearer of young Guinea-worms, with *Gammarus* as the host of a trout's echinorhynchus larva, with *Melolontha* as the bearer of the hog's echinorhynchus, with *Trichodectes* as the bearer of a canine tapeworm, and rats and mice of a feline one, or with molluscs as the bearers of cercariæ, the result is invariably the same. Sexual maturity cannot be arrived at prior to the passage of the parasite into the body of the ultimate host. After repudiating several other incorrect statements wrongly ascribed to him, Dr. Cobbold next took up the question of the true mode of action of the filariæ and micro-parasites generally in the production of disease. If the victim or bearer of the parasites be regarded, as he ought to be, as the legitimate home or territory of certain parasitic inhabitants, it will be found that, in the case of minute entozoa, the injury to the territory is primarily due to overcrowding. In a subsidiary manner the injury is due to the activity or locomotion of the parasitic inhabitants. A few thousands, or even millions, of trichinæ may bore their way through the tissues without occasioning the slightest inconvenience to the human bearer. Many millions of trichinæ are necessary for the production of grave symptoms of trichinosis in man; consequently the presence of a few millions without the production of actual disease or suffering affords no proof whatever that the parasites lack the power of creating mischief. That which obtains in trichinosis obtains in the case of allied affections, such as filariasis, ocellulariasis, strongylosis, bestode tuberculosis, and so forth. Nearly forty years ago, Gruby and Delafond found micro-filariæ in the blood of 5 per cent. of dogs examined by them, but did not settle the question of their origin. From 11,000 to 224,000 of these larvæ might exist without causing their host the slightest symptoms of mischief. In 1867, Dr. Cobbold expressed the opinion that these worms were the larvæ of *Spiroptera sanguinolenta*—a view subsequently confirmed by Lewis and Manson. The latter writer found that the canine filariæ showed a periodic increase and diminution of numbers in the blood, but, unlike the human parasite, were never completely absent from the circulation. Dr. Cobbold could not share the surprise shown by Manson at the fact of the freedom of these verminous dogs from symptoms: had the parasites, instead of a few thousands, numbered many millions, he should expect the canine territory to display some of the injurious results of overcrowding. When the sexually mature and very much larger filariæ were present in the heart, it was easy to see that the immediate cause of pain, followed often by sudden death, was the obstruction to the circulation occasioned by the worms. In the same way, in birds, it requires a great number of the tapeworms normally present in the intestines to produce an epizootic. When caused by smaller worms than bestodes, young and old birds alike succumb to any undue expression of the fauna. In a recent communication to the Linnæan Society, the author showed that the ostrich epidemic in South Africa was due to a parasite named *Strongylus Douglassii*, myriads of which, occupying the proventriculus of young birds, set up an irritation which, sooner or later, proved fatal. The author next dealt with the assumption of the necessity of some pre-existent cachexia or constitutional weakness to account for diseases produced by worms. Cachexia, when produced, is the result of the loss of blood, gastro-enteric irritation, or other disturbance set up by the parasites. Certain morbid states may favour the growth of fungi in vegetable life, but helminths attack the weakly and the perfectly healthy with equal impartiality. The adult *Filaria sanguinis hominis* is closely connected with the lymphatic system, and has actually been obtained by aspirating the glands and dilated lymphatic vessels. While far from thinking that all chylurias, chyloceles, and other

phases of chylosis are exclusively due to parasites, Dr. Cobbold holds that all of these affections may directly arise from mechanical obstruction by worms to the flow of the contents of the lymphatic channels. Independently of Manson, Lewis, and Bancroft in the East, Drs. F. dos Santos, Arunjo, Magalhaes, Bourel-Roncière, and many others in Brazil, have acknowledged the causal relation between filariæ and many cases of lymph-scrotum, chylocele, lymph-varices, and fistulæ, etc.; and the English physicians in Rio and Bahia have not been behind their foreign *confrères* in throwing light on the subject.

In the discussion which followed, the President, Dr. Vandyke Carter, Dr. Stephen Mackenzie, and others, took part.

OBITUARY.

JOHN FLINT SOUTH, F.R.C.S.

THE profession at large, and especially old Guy's and St. Thomas's men, will regret to hear that this venerable member of our profession died on Sunday, the 8th inst., at his residence, Blackheath Park, in the eighty-fifth year of his age.

Mr. South was the son of a well-known apothecary in Lant-street, Borough, of whose knowledge and skill so high an opinion was entertained that the physicians and surgeons in attendance on the Right Hon. William Pitt in his last illness called him in consultation, when he administered what he called his *elixir vitæ* with such gratifying result for a time as to hope that Pitt's valuable life would be prolonged; but the good effects soon passed away, and two days afterwards the patient expired. Mr. South received a first-class preliminary education, speaking French and German fluently; and being also a good classical scholar, he was for many years, when a member of the Council of the College of Surgeons, selected to examine the articulated students in Latin prior to their being apprenticed to the College.

On the completion of his preliminary education, Mr. South was apprenticed at the College to Mr. Henry Cline, jun., who received with him the usual fee of 500 guineas, to board and lodge out of the house; the premium for a resident pupil to a hospital surgeon being one thousand guineas. This apprenticeship generally led in due time to an appointment on the surgical staff, to which so many anxiously looked forward. Pursuing his studies with great diligence, Mr. South became a great favourite with his teachers, and offering himself for examination for the Membership of the College, was admitted August 6, 1819. On the new charter being granted to the College, he was one of the first three hundred admitted as Honorary Fellows of the College. After passing his examination as Member, he visited and remained some time in France, Germany, and Sweden, where he made hosts of friends—among others, Eckström, Retzius, Purkinje. Some few of his foreign friends at the recent International Congress visited him at his hospitable residence at Blackheath Park.

On his return to England, Mr. South became attached to St. Thomas's Hospital as Demonstrator, later as Lecturer on Surgery, and ultimately became senior Surgeon. Whilst waiting for practice in Adelaide-place, London-bridge, Mr. South devoted himself to literary pursuits, publishing a text-book on the Bones; and translating, with notes, Otto's "Compendium of Human and Comparative Pathological Anatomy." But his greatest contribution to the literature of surgery was his translation of "Chelius's System of Surgery, with Original Notes." This truly monumental work was a marvel of industry and erudition. It consisted of the text of Chelius's System embedded in a mass of copious and valuable notes and illustrative matter; the whole forming two very thick octavo volumes. In the affairs of the College of Surgeons, when elected a member of Council in 1841, with Mr. J. M. Arnott (who still survives), Mr. South ever took the greatest interest, serving faithfully and zealously on all boards, courts, and committees. In 1844 he delivered the Hunterian Oration, in which, curiously enough, little or nothing was said of John Hunter, this subject being reserved, he told the writer of this notice, for a second oration. The following year he was appointed "Arris and Gale" Professor of Human Anatomy and Surgery. In 1849 he was elected, with Mr. Cæsar Hawkins, who also survives him, a member

of the Court of Examiners, and as such was considered very severe, with strong and deep-rooted prejudices, although so great was the interest he took in his work that he kept every night "a full, true, and particular account" of the examination of every candidate at his table, which records were bound, and at his retirement presented to the College.

In 1851 he obtained the highest honour his colleagues could confer on him—that of President, which office he again occupied in 1860.

Mr. South was a member of many societies at home and abroad, especially at Stockholm, where he obtained, through the interest of his friend Retzius, the large medal for introducing our well-known vegetable marrow. He never contributed anything to the medical journals, however, having, as he often expressed it, a great horror "of those editor chaps."

Mr. South was twice married: by the first wife he leaves one son (a clergyman) and a daughter; by his second wife he leaves two daughters.

To those who did not know him well he might appear a little brusque; but he was a good and firm friend, and never more happy than when entertaining and talking with old friends.

Through Mr. South's energy and untiring zeal, the remains of John Hunter, discovered by the late Mr. F. T. Buckland in the vaults of St. Martin's-in-the-Fields, were afterwards re-interred in Westminster Abbey, and the elegant inscription on the tablet marking the final resting-place was from his pen. We understand that for some years past he had been engaged in writing a very full and most interesting history of the Royal College of Surgeons, and one also of St. Thomas's Hospital. His memory was fresh and clear, and his pen and brain were never idle.

PROFESSOR NICHOLAS PIROGOFF.

WE extract the following sketch of the life of the great Russian surgeon from the *St. Petersburger Medicinische Wochenschrift* for December 17:—

"Although we have already in our preceding number expressed our grief at the great loss which our profession, our science, and our country has sustained in the death of Pirogow, we are desirous to-day of giving a short account of the events of the life of this great *savant* and surgeon.

"Nicolai Pirogow was born November 13, 1810, at Moscow, where his father was an official in the Commissariat. He entered the Moscow University at the early age of fourteen, and at the end of three years he received his primary degree. Following the advice of one of his teachers, he entered the Professorial Institute, and was sent to Dorpat, where at that time this Institute was engaged in the instruction of professors. He studied there for five years, and in 1833 produced his inaugural dissertation (*Num vinctura aortæ abdominalis in aneurysmate inguinali adhibita facile ac tutum sit remedium*), and received a doctor's diploma. For the completion of his education he visited Berlin, and then Göttingen, where he remained two years. While on his return home he fell ill, and from his sick-bed learned that the Professorship of Surgery at Moscow, which had been promised him, was conferred upon a Dorpat fellow-student. He had scarcely recovered, however, when he received the same appointment in the Dorpat University. Here he continued for five years (1836-40), and during this time brought out his celebrated work on the Surgical Anatomy of the Arteries. After leaving Dorpat, he repaired to Paris for the purpose of additional study, and meeting Velpeau one day, who had just been inspecting his Atlas, then just published, the famous surgeon exclaimed, 'You have nothing to learn from me; it is I who have to learn from you!' In 1840 he was appointed Professor of Clinical Surgery in the Medico-Chirurgical Academy of St. Petersburg. The military hospital in which his work was carried on was at that time, as he described it in his address at his Moscow jubilee, truly a nest of epidemic disease, filled with miasmata, under the influence of which the healthy and the sick alike became victims. His energetic attempts at obtaining a reform of the defective hygienic conditions brought upon him the ill-will of the hospital managers, who carried it so far as to suspect him of a disturbed intellect, and placed him under private surveillance to prevent his injuring the patients! In this hospital, Pirogow was the first in Russia

to employ anæsthetics. In 1843, when the cholera raged, he established a separate division for cholera cases, and he executed more than 800 autopsies of the bodies of those dying from this disease—this leading to the publication of his treatise on the Pathological Anatomy of Cholera. In the course of fourteen years he performed more than 11,000 autopsies. During the Crimean War, Pirogow, with the greatest sacrifice, exhibited constant activity in Sevastopol, but by his energetic denunciation of the monstrous abuses of the administration he came into collision with the military departments, so that on his return to St. Petersburg he found himself compelled to resign his professorship at the Medico-Chirurgical Academy, this being under the direction of the Minister of War. An essay which he had published some time before having attracted the attention of the Minister of Education, Pirogow was appointed curator of the Odessa and other educational districts; but here again he had to struggle with narrow-minded ideas and petty interests, so that, finding his influence counteracted, he retired into the solitude of country life. During the last fifteen years he remained aloof from all public activity, only occasionally quitting his solitude when a demand was made upon his knowledge and ripe experience—as, for example, in the late Turkish war, when he visited all the military hospitals, rendering his aid whenever it seemed to him necessary. Latterly, Pirogow had become the subject of a terrible disease, for soon after his jubilee festival in Moscow, a few months since (*Medical Times and Gazette*, June 25, page 707), a cancer of the hard palate appeared. Nevertheless, he continued to work unremittingly at the two volumes on the sanitary condition of the troops during the late war, and an autobiography, which, unfortunately, remains unfinished.

"In this sketch, no notice has been taken of Pirogow's various contributions to medical science, and especially to surgery, for the value of his services on military sanitary medicine, military surgery, in the introduction of the gypsum bandage and osteoplastic operations, etc., are well known to the whole medical world, and were justly appreciated in foreign countries before they were acknowledged in his own."

[The writer of the above has made no allusion to Pirogow's magnificent Atlas of Frozen Sections, the "Anatome Topographica."]

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 5th inst., and when eligible will be admitted to the pass examination, viz.:—

Axford, Walter G., student of the Westminster Hospital.
Bowling, George A. L., of the London Hospital.
Bullock, Thomas W., of St. Thomas's Hospital.
Dubourg, Augustus H., of St. George's Hospital.
Freeland, F. John, of King's College Hospital.
Harcourt, Vincent X., of St. Bartholomew's Hospital.
Holman, Frederick M., of University College Hospital.
Maher, Charles H., of the Dublin School.
Mitra, Jogindra Nath, of the Calcutta School.
Pratt, William S., of the Manchester School.
Shadwell, Henry E., of King's College Hospital.
Thorburn, William, of the Manchester School.

Twelve candidates were rejected. The following gentlemen passed on the 6th inst., viz.:—

Bisshopp, Francis R. B., student of Guy's Hospital.
Castle, C. M. Wigram, of King's College Hospital.
Diplock, Leonard B., of St. George's Hospital.
Gent, G. Sidney, of University College Hospital.
Hore, H. St. G. Standish, of Guy's Hospital.
Howard, Arthur W., of University College Hospital.
Jeyes, Arthur A., of Guy's Hospital.
Lyster, Arthur E., of St. Bartholomew's Hospital.
Moris, Edward, of St. Bartholomew's Hospital.
Page, Alfred M., of St. Bartholomew's Hospital.
Plowman, Sidney, of St. Thomas's Hospital.
Price, Arthur E., of Guy's Hospital.
Wornum, George P., of Guy's Hospital.

Eleven candidates were rejected. The following gentlemen passed on the 9th inst., viz.:—

Aubrey, Henry W. W., student of the Bristol School.
Bateman, Robert W., of the London Hospital.
Collyer, James R., of St. George's Hospital.
Colman, Harry, of the Charing-cross Hospital.
Cummings, Harold L., of St. Bartholomew's Hospital.
Graham, John B., of University College Hospital.

Harris, John W., of Guy's Hospital.
 Hill, Rowland, of University College Hospital.
 Jacobson, Thomas B., of Guy's Hospital.
 Little, George A. P., of St. Bartholomew's Hospital.
 Morris, Charles E., of St. Bartholomew's Hospital.
 Nicholson, Malcolm A., of the Toronto School.
 Pullin, Bingley G., of St. Bartholomew's Hospital.
 Roberts, Arthur, of the London Hospital.
 Roberts, John S. H., of University College Hospital.
 Ross, Elsey F., of University College Hospital.
 Swain, James, of the Westminster Hospital.
 Trower, Arthur, of St. Bartholomew's Hospital.

Six candidates were rejected. The following gentlemen passed on the 10th inst., viz.:—

Alsop, Clement, student of St. Bartholomew's Hospital.
 Brown, Osmond P., of St. Bartholomew's Hospital.
 Childe, Frederick, of Guy's Hospital.
 De Montbrun, Domingo A., of St. Mary's Hospital.
 Freeman, Francis, of St. Bartholomew's Hospital.
 Jackson, Herbert F., of St. Bartholomew's Hospital.
 Le Maistre, Francis W. S., of King's College Hospital.
 Murton, John, of University College Hospital.
 Palmer, George E., of Guy's Hospital.
 Powell, Herbert E., of St. Bartholomew's Hospital.

Fourteen candidates were rejected. The following gentlemen passed on the 11th inst., viz.:—

Allen, Sidney G., student of St. Mary's Hospital.
 Bell, Charles W. J., of St. Thomas's Hospital.
 Bindley, Robert A., of Guy's Hospital.
 Bowker, Robert S., of the Middlesex Hospital.
 Cheves, William A. A., of King's College Hospital.
 De Montbrun, Pedro L., of St. Mary's Hospital.
 Emtage, Edmund W., of University College Hospital.
 Field, Adolphus T., of King's College Hospital.
 Foley, Charles N., of St. Thomas's Hospital.
 Fuller, George H. H., of Guy's Hospital.
 Hayes, Julian P. S., of St. Mary's Hospital.
 Jones, John E. E., of the Middlesex Hospital.
 Preston, Francis H., of St. Bartholomew's Hospital.
 Rowe, William J. V., of St. Thomas's Hospital.
 Shaw, Hugh G., of University College Hospital.
 Smith, Arthur J. N., of the Westminster Hospital.
 Waters, Avery C., of the London Hospital.
 Wingrave, V. H. Wyatt, of the Middlesex Hospital.

Six candidates were rejected.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 5:—

Roberts, Thomas, 81, Tredegar-road, Bow, E.
 Stephens, Lockhart Edward Walker, Emsworth, Hants.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

LEAHY, ALBERT WILLIAM DENIS, F.R.C.S. Eng.—Surgical Registrar to the Charing-cross Hospital, *vice* Whitehead, appointed Assistant-Surgeon.

BIRTHS.

AVELING.—On January 6, at 14, Portland-place, Lower Clapton, the wife of Charles T. Aveling, M.D., of a son.
 EVANS.—On January 3, at Hampstead, the wife of Herbert N. Evans, M.B., of a son.
 GARDNER.—On December 23, at Sheerness, the wife of R. H. Gardner, M.D., Surgeon Army Medical Department, of a son.
 KEOGH.—On December 11, at Cedar Park, Prospect, Bermuda, the wife of Surgeon A. Keogh, M.D., C.M., Army Medical Department, of a son.
 MAUNSELL.—On December 28, at 16, St. James's-terrace, Winchester, the wife of Surgeon-Major C. A. Maunsell, of a son.
 NESBIT.—On January 3, at 34, Cambridge-place, Hyde-park, the wife of Dawson Nesbit, M.D., of a daughter.
 WICKSTEED.—On January 8, at Chester House, Weston-super-Mare, the wife of Francis W. S. Wicksteed, M.R.C.S., of a son.

MARRIAGES.

BUCKHAM—THOMSON.—On January 10, at Woolton Hill, the Rev. Fredk. Holmes Buckham, Vicar of St. John the Divine, Thorpe, near Halifax, to Isabella Worsley, only daughter of George Lawson Thomson, M.D.
 LANGDON—WOODS.—On December 30, at Holloway, London, John Winkley Langdon, M.R.C.S., of Winckley-square, Preston, to Annie Nightingale Woods, of The Colonnade, Preston.

DEATHS.

FOOT, HELEN META, daughter of R. H. Foot, M.D., at Wells, Norfolk, on January 8, aged 20 months.
 HALLOWES, PRICE BLACKWOOD, F.R.C.S., at Canterbury, on January 4, in his 81st year.
 KINGSTON, CATHERINE MINET, wife of P. N. Kingston, M.D., at 19, Kensington-gate, W., on January 8.

TAYLOR, JOSEPH MARMADUKE, Surgeon-Major, late Royal Horse Guards, at St. George, Guernsey, on January 7.

TURNER, ROGER, M.D., of Ashurst, Nightingale-lane, Clapham Common, formerly of Petworth, Sussex, on January 3, in his 76th year.

WILLIAMSON, ROBERT ISHERWOOD, F.R.C.S., M.A., M.B., at Florence, on January 6, aged 29.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CHARING-CROSS HOSPITAL.—Assistant-Physician. (*For particulars see Advertisement.*)

CITY OF LONDON LYING-IN HOSPITAL, CITY-ROAD.—Consulting Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London. Applications, stating qualifications, etc., to be sent to the Secretary, on or before January 17.

CRAIGLOCKHART HYDROPATHIC, NEAR EDINBURGH.—Resident Physician. (*For particulars see Advertisement.*)

GREAT WESTERN RAILWAY.—Medical Officer. (*For particulars see Advertisement.*)

HUDDERSFIELD INFIRMARY.—Senior House-Surgeon and a Junior House-Surgeon. Candidates for the former must be doubly qualified, and for the latter they must possess, at least, one registered qualification. Applications and testimonials to be sent to Fredk. Eastwood, Hon. Secretary, not later than January 21.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Visiting Physician. Testimonials and qualifications to be sent to Francis Baily, Secretary, on or before January 28.

LEAMINGTON AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Candidates must be duly qualified, married, and not under thirty years of age. Printed forms of application may be obtained of the Secretary, Mr. C. Wildman, 6, Woodbine-street, Leamington.

LINCOLN COUNTY HOSPITAL.—House-Surgeon. Candidates must be members of the Royal College of Surgeons of England, Edinburgh, of Dublin, and Licentiates of the Apothecaries' Company, or of one of the Royal Colleges of Physicians; graduates in medicine of one of the Universities of Great Britain or Ireland; duly registered under the Medical Act; under forty years of age, and unmarried. Testimonials as to qualifications and character to be sent to J. W. Danby, Secretary (from whom further particulars may be obtained), on or before January 16.

ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. (*For particulars see Advertisement.*)

ST. MARYLEBONE GENERAL DISPENSARY, 77, WELBECK-STREET, CAVENDISH-SQUARE.—Honorary Obstetric Physician. Candidates must be Fellows or Members of the Royal College of Physicians, or graduates in medicine of one of the universities of the United Kingdom, and reside in the immediate neighbourhood of the Dispensary. Applications and testimonials to be sent to F. Stokes, Secretary, not later than January 16, and candidates must attend at the Dispensary on January 18, at five o'clock precisely.

ST. MARYLEBONE GENERAL DISPENSARY, 77, WELBECK-STREET, CAVENDISH-SQUARE.—Resident Medical Officer. Candidates must be registered, and hold a medical and surgical qualification. Applications and testimonials to be sent to F. Stokes, Secretary, not later than January 16, and candidates must attend at the Dispensary on January 18, at five o'clock precisely.

SUSSEX LUNATIC ASYLUM, HAYWARD'S HEATH.—Junior Assistant Medical Officer. Candidates must be unmarried. Applications and testimonials to be sent to the Medical Superintendent not later than January 18.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

St. Asaph Union.—Mr. Robert Roberts has resigned the Llanfairtalhaiarn District: area 37,175; population 3593; salary £83 per annum.

APPOINTMENTS.

Burton-on-Trent Union.—Herbert G. Cronk, M.R.C.S. Eng., B.M. Cam., to the Repton District.

Forden Union.—John Gill, L.R.C.P. Lond., M.R.C.S. Eng., to the Welshpool District.

Lyme Regis.—Edward J. Day, F.C.S., M.R.C.S. Eng., L.S.A., as Analyst for the Borough.

Risbridge Union.—E. A. Piggott, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A., to the Second District.

OWENS COLLEGE, MANCHESTER.—At the examination for Honours, following the recent M.B. Examination of the University of London, Mr. Robert Maguire, of Owens College, obtained the Scholarship and the Gold Medal in Medicine, a Gold Medal in Obstetric Medicine, and a Gold Medal in Forensic Medicine, with the number of marks qualifying for the University Scholarship—an exceptionally brilliant position in the three possible subjects.

THE LATE DR. OTIS, U.S.A.—A bust in marble of Dr. G. A. Otis, U.S.A., has been placed in the Army Medical Museum by his brother officers.—*N. Y. Med. Record*, Dec. 17.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 7, 1881.

BIRTHS.

Births of Boys, 1412; Girls, 1387; Total, 2799.
Corrected weekly average in the 10 years 1872-81, 2827·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	983	875	1858
Weekly average of the ten years 1872-81, } corrected to increased population ...	939·1	925·8	1834·9
Deaths of people aged 80 and upwards ...	...	...	87

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric(or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	668993	...	12	9	1	16	1	5	...	1
North ...	905677	4	9	9	5	12	...	9	1	2
Central ...	281793	...	4	3	1	3	...	3	...	1
East ...	692530	...	8	6	2	33	...	1	...	5
South ...	1265578	16	20	17	4	39	...	3	1	3
Total ...	3814571	20	53	44	13	103	1	21	2	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29·579 in.
Mean temperature ...	...	...	...	...	...	43·9°
Highest point of thermometer ...	...	...	...	...	...	52·9°
Lowest point of thermometer ...	...	...	...	...	...	33·6°
Mean dew-point temperature ...	...	...	...	...	...	39·7°
General direction of wind ...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0·60 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Jan. 7, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Jan. 7.	Deaths Registered during the week ending Jan. 7.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3891078	2799	1858	24·9	52·9	33·6	43·9	6·61	0·60	1·52
Brighton ...	109573	75	64	30·5	50·8	33·3	42·4	5·78	0·79	2·01
Portsmouth ...	129875	85	63	25·3	...	...	...	...	...	...
Norwich ...	93821	55	41	24·1	...	...	...	...	...	...
Plymouth ...	74449	34	30	21·0	53·4	36·6	46·3	7·95	1·20	3·05
Bristol ...	210134	133	84	20·9	52·8	35·5	44·1	6·73	1·55	3·94
Wolverhampton ...	76756	62	41	27·9	...	...	...	...	...	...
Birmingham ...	408532	300	194	24·8	...	...	...	...	...	...
Leicester ...	126275	104	53	21·9	...	...	...	...	...	...
Nottingham ...	193573	151	106	28·6	55·9	32·5	43·1	61·7	0·47	1·19
Derby ...	83587	64	32	20·0	...	...	...	...	...	...
Birkenhead ...	86532	51	31	18·7	...	...	...	...	...	...
Liverpool ...	560283	361	336	31·3	...	...	...	...	...	...
Bolton ...	106767	82	54	26·4	...	...	...	...	...	...
Manchester ...	340316	235	165	25·3	...	...	...	...	...	...
Salford ...	184001	129	110	31·2	...	...	...	...	...	...
Oldham ...	115572	80	58	26·2	...	...	...	...	...	...
Blackburn ...	106460	70	38	18·6	...	...	...	...	...	...
Preston ...	97656	82	69	36·9	...	...	...	...	...	...
Huddersfield ...	83418	66	30	18·8	...	...	...	...	...	...
Halifax ...	74713	37	19	13·3	...	...	...	...	...	...
Bradford ...	188101	127	75	20·8	52·0	35·0	43·1	6·17	1·98	5·03
Leeds ...	315998	235	168	27·7	53·0	33·0	43·7	6·50	1·04	2·64
Sheffield ...	290516	224	127	22·8	...	...	...	...	...	...
Hull ...	158857	117	76	25·0	52·0	30·0	40·6	4·78	0·72	1·83
Sunderland ...	119065	82	52	22·8	...	...	...	...	...	...
Newcastle ...	147626	107	64	22·6	...	...	...	...	...	...
Cardiff ...	86724	52	42	25·3	...	...	...	...	...	...
For 28 towns ...	8455308	3002	4080	25·2	55·9	30·0	43·4	6·33	1·04	2·64
Edinburgh ...	232440	117	85	19·1	51·0	31·2	40·3	4·61	1·46	3·71
Glasgow ...	514048	375	262	26·6	62·0	31·5	42·5	5·84	2·37	6·02
Dublin ...	348293	202	240	36·0	53·0	22·4	43·2	6·22	0·63	1·73

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·58 in. The lowest reading was 29·08 in. on Tuesday morning, and the highest 30·01 in. at the end of the week.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

A PRINTER'S ERROR.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your instructive article upon "Iodoform," you mention 1865 as the date of Righini's monograph; it was 1863, as a reference to "Medical Digest" 252:4 will show. Since 1876 there is an immense mass of literature upon the subject, which will appear in the second edition of the "Digest."
I am, &c.,
60, Boundary-road, N.W.
R. NEALE, M.D.

J. Copeland, Grove, South Hampstead.—We do not in the slightest degree hold ourselves responsible for how our correspondents spell or write English and Latin. Unfortunately, we have too much to do to look always after what we are strictly responsible for.

Recalcitrant.—The Corporation of Newport, Isle of Wight, has decided to embody in a letter to the Local Government Board an absolute refusal to comply with several directions of the Board relating to the appointment of one medical officer of health for the island.

Coldest Place in the World.—The coldest place on the earth is Verkovansk, in Siberia, lying in 67½ N. latitude on the river Yana. The lowest mean winter temperature is 48·6° Centigrade below zero. It is noteworthy that Verkovansk, like Yakutsk, is on the mainland, a considerable distance from the Siberian coast, which possesses a comparatively milder climate.

Maximum Dividends and Water-Rates.—By the recently issued Parliamentary return the rents of the eight metropolitan water companies amounted to £1,500,000.

Liquor Licences, Jersey.—The Jersey Licensing Board has issued a notice that in future they will not grant publicans' licences to other shopkeepers, such combination of businesses being, in their opinion, inexpedient and contrary to public interest. The Board is composed of the Governor of the island, the bailiff, and judges of the Royal Courts.

Marcus.—The Local Government Board by a general order some time ago made it incumbent upon all district and workhouse medical officers to notify to the sanitary authority or medical officer of health the occurrence of any case of dangerous infectious disease among the pauper patients under their care, and by a subsequent order imposed a similar obligation upon medical officers of district schools.

The Margate Sea-Bathing Infirmary.—It is stated that the Prince and Princess of Wales will shortly open the new wing and chapel added to this institution by Sir Erasmus Wilson at a cost of nearly £30,000.

Football Fatalities.—It is noticeable that the list of serious results from playing football is continually receiving additions. The son of the Principal of Jesus College, Oxford, has lately succumbed to the injuries caused some time since when playing at football at Sherborne School. In a similar casualty, over which an inquest was held, the jury recommended that the Secretary of the Rugby Union be requested to lay before the next meeting of the Union their suggestion that the football rules should forbid "butting."

Purification of Air in Hospitals.—Dr. Neale recommends a chemical punkah, the fan of which, being made of vegetable fibre, is saturated with caustic soda solution fed from a small tank above.

A Pure Water-Supply.—Deep well boring for the public supply of water is being more generally adopted, and superseding the usual sources of supply, which are, as a rule, impregnated with dangerous impurities, and a fruitful cause of disease. Deep well water has obvious advantages. It undergoes such prolonged and exhaustive filtration through great thicknesses of porous rock as to render it extremely unlikely, if not impossible, that any portion of the organic matter still remaining in it should be of a noxious character.

Vacant Coronership.—The death is announced of Mr. Thomas Dewes' Coroner for North Warwickshire.

Newspaper, etc., Vendors in the Streets.—The Edinburgh Town Council has recently formulated a series of by-laws, by one of which children under ten years of age, and other persons not licensed, are prohibited from selling newspapers or other articles on the streets. The licence is to cost sixpence; and the holder must wear a badge, be in a fit state of health, cleanly, and civil, and give notice to the Chief Constable of any change of his or her residence.

The Metropolitan Asylums Board Expenditure.—At the St. Saviour's Board of Guardians, last week, a prolonged discussion took place upon the increased expenditure of the Metropolitan Asylums Board, on a letter from the City of London Union, requesting that delegates be appointed to attend a meeting to further the objects of an inquiry into the management and expenditure of the Board. The Vice-Chairman said the Asylums Board had spent £240,000 during the last six months, and might spend £440,000 in the next if no protest were made. The Chairman and Vice-Chairman were appointed as delegates.

Max.—The ordinary income of the Royal Infirmary, Edinburgh, for the past year was £21,902, and legacies and donations of £100 and upwards amounted to £6572, making a total of £28,474. The ordinary expenditure, including fever hospital, amounted to £31,720.

Non-observance of an Ancient Custom.—It used to be a privilege, we understand, in old times, for the Lord Mayor of London to succeed to the presidency of any Royal Hospital that became vacant during his year of office. The President of St. Thomas's recently died, and the authorities have availed themselves of the services of the Duke of Connaught.

Urban and Rural Sanitary Works.—The new waterworks for the supply of the village of Carnoustie have just been opened. The total outlay has been about £7000.—The experimental borings for a supply of water to the districts of Newhaven, Denton, Seaford, Blatchington, and Bishopstone by a private company have at last been successful. The well was sunk some time ago on the Bullock Hill, Blatchington, but, although the water was of excellent quality, the quantity yielded was quite insufficient for the purposes of the scheme. By boring an additional depth of 146 feet an abundant supply has been struck.—The Exmouth Local Board are about to form an intercepting sewer for the sewage of the district, and to take the outfall to deep water outside the Maer Rocks. The estimated cost is £4650.—The new boring for an additional water-supply at Colchester has proved a complete success. An abundant supply has been obtained at a less depth than anticipated.—The Local Board of Leyton, Essex, are about to purify, and dispose of the sewage of their district by the method of pressing the sludge into a portable condition, recently introduced successfully at the Coventry sewage works.—The Birmingham Town Council have resolved to apply to the Local Government Board for sanction to borrow a further sum of £100,000 for the purposes of the improvement scheme.

Longevity.—The obituary of the *Times* of the 11th instant contained some remarkable illustrations of prolonged existence in nine persons—viz., six ladies and three gentlemen whose united ages amounted to 774 years, giving an average of exactly 86 years to each. As usual, the oldest was a lady, who had reached the great age of 96 years, the youngest of the same sex being 81. Of the gentlemen, the oldest was 94, and the youngest 82 years of age. The following were the respective ages—viz., two at 81, 82, 83, two at 85, 87, 94, and 96. The same obituary recorded the deaths of fourteen septuagenarians, ranging from 72 to 79, and averaging exactly 75 years.

Liquor Trade Laws in New South Wales.—Lord Augustus Loftus, the Governor, in his speech proroguing the Parliament, referred to the Act to remodel these laws, and expressed the hope that great benefit would result to the community from the principles laid down in the measure, which conferred upon the State great powers of control and restriction in insuring the correct operation of the law.

The Coroner Evaded.—Touching the escape of a small-pox patient from the West Hulme Hospital, Oldham, Mr. Molesworth, the Coroner, in alluding to the matter at an inquest he held a few days since, inadvertently in strong terms on the manner the authorities had acted in not acquainting him with the facts of the man's death, which, he said, resulted from exposure, and anyone responsible might be held criminally liable. An improper certificate as to the cause of death must have been given, because the registrar would not have certified if death had been accelerated by exposure.

COMMUNICATIONS HAVE BEEN RECEIVED FROM—

Dr. G. HARLEY, London; Mr. J. COPELAND, Hampstead; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE SECRETARY OF THE ROYAL MICROSCOPICAL SOCIETY OF LONDON; Sir EDWARD LECHMERE, London; THE SECRETARY OF THE HOSPITAL FOR WOMEN, Chelsea; Dr. McCraith, Smyrna; Dr. CREIGHTON, London; Mr. NELSON HARDY, London; Dr. HERMAN, London; Mr. J. CHATTO, London; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF LONDON; THE SECRETARY OF THE SHEFFIELD HOSPITAL FOR SKIN DISEASES, Sheffield; THE SECRETARY OF THE ROYAL INSTITUTION, London; Mr. A. E. BROWN, Sheffield; Dr. NORMAN CHEVRS, London; Mr. RUSHTON PARKER, Liverpool; Dr. E. SYMES THOMPSON, London; THE SECRETARY OF THE MANCHESTER MEDICAL SOCIETY; THE DIRECTORS OF THE NAVAL MEDICAL SUPPLEMENTAL FUND, London; THE HONORARY SECRETARY OF THE HARVEIAN SOCIETY OF LONDON; Mr. SHIRLEY MURPHY, London; Dr. EWART, London; Dr. DUDGEXON, London.

BOOKS, ETC., RECEIVED—

Sessional Proceedings of the National Association for the Promotion of Social Science—Die Behandlung Schwerer Formen von Neuralgie und Muskelrheumatismus, von Dr. J. Schreiber—Consumption, by C. W. de Lacy Evans, M.R.C.S.—Only a Twelvemonth, etc.—On Hip Disease, by A. B. Judson, M.D.—Harvard University (Boston) Medical School Annual Catalogue—Religio Medici, by Sir Thomas Browne—Antiseptic Surgery, by W. Watson Cheyne, M.B., F.R.C.S.—Transactions of the American Dermatological Association—Statistical Tables of St. Bartholomew's Hospital during 1880—Difteria dei Polli Transmissibile all' Uomo, pel Dott. Vincenzo Cozzolino—Science and Culture, etc., by Thomas Henry Huxley, LL.D., F.R.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Journal of Anatomy and Physiology—

Analyst—Midland Medical Miscellany—Deutsche Medicinal-Zeitung—Practitioner—Manchester City News, December 31—Students' Journal and Hospital Gazette—Chicago Medical Review—L'Impartialité Médicale—Monthly Index—Queensland Government Gazette Supplement—Gazzetta Medica Italiana—Minnesota Medical Mirror—Tijdschrift voor Geneeskunde—Weekblad—La Independencia Médica—Westminster Review—Studium.

APPOINTMENTS FOR THE WEEK.

January 14. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

16. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. The discussion on the Salicylate Treatment of Acute Rheumatism will be resumed. Dr. Broadbent (the President), Dr. Gilbert Smith, and Dr. Douglas Powell will give further statistics.

17. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Professor John G. McKendrick, "The Mechanism of the Senses."

STATISTICAL SOCIETY, 7½ p.m. Monthly Meeting.

PATHOLOGICAL SOCIETY, 8½ p.m. Specimens: Mr. A. P. Gould—Bones from Genu Valgum. Dr. Sharkey—(1) Simple Cyst of Liver; (2) Simple Cyst of Cerebellum; (3) Gummata in Spleen. Dr. Norman Moore—(1) Abscess of Pancreas; (2) Perforation of Large Intestine in Typhoid. Dr. Carrington—Hour-glass Contraction of Stomach. Dr. Harbinson (of Lancaster)—Hereditary Cerebral Sclerosis. Mr. H. Morris—Unreduced Dorsal Dislocation of Hip (living specimen). Mr. Symonds—Rupture of Liver. Dr. S. Mackenzie—Congenital Xanthelasma (living specimens). Mr. Shattock—Congenital Tumour of Neck.

18. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

19. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ROYAL INSTITUTION, 3 p.m. Mr. H. N. Moseley, "Corals."

HARVEIAN SOCIETY (Election of Officers, 8 p.m.), 9 p.m. President's Address. *Conversazione*.

20. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Dr. William Huggins, "Comets."

SKIMMED MILK.—In an article contained in the *New York Med. Record*, October 22, Dr. Brush protests against the action of the New York sanitary authorities, who had compelled the throwing away of 1140 gallons of milk merely because it had been skimmed. This he regards as an action of mischievous destruction of a highly nutritious article of diet, which is often more easily digested than milk containing too much fat.

THE NAVAL SUPPLEMENTAL MEDICAL FUND.—At the quarterly meeting of the directors of the Naval Medical Supplemental Fund, Sir W. R. E. Smart, K.C.B., M.D., in the chair, the sum of £65 was distributed among the several applicants.

IODOFORM IN ORCHITIS.—The following formula is recommended in orchitis:—Iodoform four and vaseline thirty parts. Frictions are to be made with this on the painful testicle in orchitis and neuralgia of the cord, keeping the organ supported by a suspensory. If mercurial ointment have been previously applied to the testicle, it must be carefully cleansed away, for fear of producing an iodide of mercury, which acts as a caustic.—*Union Méd.*, December 31.

ORIGINAL LECTURES.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

By DR. McCALL ANDERSON,

Professor of Clinical Medicine in the University of Glasgow;
Physician to the Western Infirmary, and to the Special Wards for Diseases
of the Skin.

LECTURE II.

THE CLASSIFICATION OF DISEASES OF THE SKIN.

It is not my intention to dwell at any length upon the classification which I have adopted, and which is but a modification of that followed for many years at the Glasgow Dispensary for Skin Diseases, as explained by the late Dr. A. B. Buchanan in a very able article which he communicated to the *Edinburgh Medical Journal*, January, 1863. The object aimed at in this classification was to render it as useful as possible from a clinical point of view, and hence the most important point was to arrange the various diseases, as far as practicable, in accordance with their nature and cause. It is most desirable, no doubt, to have a classification in accordance with one principle; but in the present state of our knowledge it is impossible to fulfil the latter indication except at the expense of the former; and, accordingly, two principles are involved in this clinical classification—namely, the etiological and the pathological.

We divide skin diseases, then, into two great classes—namely, (a) Functional and (b) Organic. The Organic we subdivide into two great classes—1. Those defined by uniform causes; 2. Those not defined by uniform causes. The diseases defined by uniform causes are arranged under four heads—namely, 1. Parasitic affections; 2. Syphilitic affections; 3. Strumous affections; 4. Eruptive fevers. The diseases not defined by uniform causes comprise all affections of the skin not included in any of the preceding groups, and are arranged pathologically under three heads—namely, (1) Inflammations; (2) New Formations; (3) Hæmorrhages.

Before entering upon the Diagnosis of Diseases of the Skin, one or two preliminary observations may be made. The first of these is that it is always desirable, when possible, to examine our patients by daylight, especially in cases of doubt or difficulty, for artificial light alters the colouring, and changes the appearances of many eruptions to an extent that could hardly be credited. Again, it is of importance to make a rule of examining the whole surface of the body, or as much of it as possible, so as to enable us to secure a good general picture of the disease, and this is all the more necessary, seeing that the patient has a tendency to exhibit the part most readily uncovered, or which he has least delicacy in exposing, or where the eruption appears to him to have assumed the most aggravated form. Now, it happens not unfrequently that such a part is least characteristic of the disease, of which we have frequent illustrations in cases of scabies. Here, for example, the patient may exhibit his leg, which, as the result of scratching, is the seat of an acute eczematous affection, and, if we were to limit our view in such a case to this part, we would be apt to commit the error of calling the disease Eczema instead of Scabies. Finally, we must not at once accept as correct the statement of the patient as to the limitation of the eruption to the part exposed. Many say so in order to save themselves trouble, or from a false feeling of delicacy, or because they are really ignorant or are forgetful of the existence of any eruption elsewhere.

A.—FUNCTIONAL AFFECTIONS.

I. Functional Affections of the Skin.

1. *Pruritus*.—By this term is meant irritation, or itching unaccompanied by eruption, except what may be induced by scratching, of which we shall have more to say hereafter in discussing the diagnosis of animal parasitic affections. This disagreeable sensation has been variously described, such as tingling, creeping, crawling (formication), etc. It may be continuous or intermittent, and is almost always most complained of on undressing, after getting warm in bed, or when

the attention is not otherwise occupied. It may involve the whole body, as we often see in old people whose health is failing (*Pruritus senilis*); but more frequently it is localised, and the parts most liable to be attacked are the anus (*Pruritus ani*), scrotum, and the labia in the female (*Pruritus pudendi*). The diagnosis of *Pruritus* is easy—in fact, the patient furnishes us with it; but the diagnosis of the cause, which is much more important, is often obscure. In any case, it is the result of direct or of reflex irritation of the cutaneous nervous filaments, and we must endeavour to ascertain the source of this irritation, else we are little likely to benefit our patient. To aid in this investigation a few of the more common causes may be mentioned. It frequently occurs in connexion with derangement of the digestive organs and constipation; diseases of other internal organs, too, such as the kidneys, uterus, or ovaries, though less frequently, may produce it. It is a well-known and frequent accompaniment of jaundice, and is then supposed to result from the poisonous action of the bile acids, circulating with the blood, upon the nerves of the skin; but it is not so well known that a frequent source of it is the presence of sugar in the urine, especially of that form which attacks the genital organs, and we can thoroughly endorse the following statement of Trousseau's: (a)—“When you are consulted by women who are becoming elderly, for intense itching in and around the vulva—when, on examining the parts, you find that there is eczema, and learn that it has come on irrespective of the menstrual periods, or of any leucorrhœal discharge, and that the pain it occasions is so great as to prevent sleep,—the probable existence of glucosuria will suggest itself.” From all this it will be apparent that if we are to avoid errors of diagnosis as to the cause of the pruritus, a careful examination of the various organs will have to be made. It is right, however, to mention that often no satisfactory explanation can be obtained, or the cause which produced it may have disappeared, while the itching continues, owing to the cutaneous nervous filaments having, so to speak, contracted a bad habit. Under these circumstances the disease must be treated empirically.

Finally, there is a variety of *Pruritus* described by Dr. Duhring under the name of *Pruritus hiemalis*. (b) This form occurs in cold climates during cold weather, and appears to result from the cold; hence it is present generally during the autumn, winter, and spring months, sometimes for the whole of that time, sometimes only for a few weeks, and it may be an annual visitor. It is chiefly met with on the lower extremities, but is equally frequent in both sexes, and amongst all classes of the community.

2. *Atrophia cutis*.—Atrophy of the skin may either be a primary or a secondary affection; but with the latter, which occurs in connexion with and in consequence of other diseases, such as lupus, tinea favosa, etc., we have at present nothing to do. Primary atrophy of the skin may be either general or partial. Of the former we have an illustration in the atrophy which occurs in common with the other structures of the body in old people (senile atrophy). The latter is much more frequently met with, and arises in various ways. We frequently meet with it as the result of undue stretching of the skin, causing it to give way in streaks or lines, as on the breasts and abdomen of women who have been pregnant (*Lineæ Albicantes*). It sometimes occurs too in wavy lines following the course of certain nerves (we have seen it most frequently in the track of one of the branches of the supra-orbital). These vary from one to several inches in length, and from two to three lines in breadth, are whitish, depressed, and void of sensation. The nature and cause of these nerve-lesions are obscure, and it is useless to speculate upon them, but they seem dependent upon local conditions, seeing that they are almost invariably unsymmetrical.

Allied to this condition is that rare affection, *unilateral atrophy of the face*, in which all the structures of one side of the face are involved, and which is supposed by some to be due to permanent irritation of the cervical sympathetic. Brunner(c) gives the case of “a Jewish lady, twenty-seven years of age, who, during pregnancy, had an attack of convulsions with loss of consciousness, and afterwards repeated epileptic seizures. For a long time these

(a) “Lectures on Clinical Medicine,” Sydenham Society's translation, 1870, vol. iii., page 503.

(b) *Philadelphia Medical Times*, January 10, 1874.

(c) Quoted from “Physiology and Pathology of the Sympathetic System of Nerves,” by Drs. A. Eulenburg and P. Guttman, translated by Dr. A. Napier, page 75. Churchill, 1879.

attacks followed regularly on each faradisation of the facial muscles, and were ultimately associated with difficulty of breathing and palpitation. In the course of four years an atrophy of the left side of the face was gradually developed, the hair of the head and the eyelashes became grey, and several yellow and white spots appeared on the skin, which afterwards assumed a yellowish-brown or brown colour. There was also a feeling of pressure and cold in the left eye, pain in the whole left side of the face and in the jaw and throat, violent pain in the neck and chest as far down as the region of the stomach—the latter sensations presumably only on the left side. The frontal and temporal muscles were found to have almost completely disappeared, and the zygomatics and the other muscles of the angle of the mouth, of the nose, and lips, more or less atrophied, and some of them at the same time contracted; their electro-muscular contractility was intact. The external part of the left ear was, on the whole, much thinner, smaller, and cooler than that of the right. The left eye appeared larger than the right, *the palpebral fissure wider, and the eyeball more prominent, the pupil more dilated and sluggish in its action.* The conjunctiva was rather pale, its vessels being sparingly filled with blood; the secretion of tears and mucus was diminished. The skin of the whole face was very thin and dry, and the subcutaneous fatty cellular tissue almost entirely absent. One side of the face was always paler, even when reddened by heat, cold, or mental changes; it took almost no part in perspiration, only the nasal fold being somewhat moist. The temperature in the right side of the mouth was 0.2°C . higher than in the left, and in the right auditory meatus about 1° higher than in the left. There was pain on pressure on the left ganglion cervicale supremum, but none on the right; pressure on the ganglion cervicale medium on both sides produced slight pain. The heart-sounds were clear, but irregularly accentuated, the same being the case in the carotid sounds; frequency of pulse variable—86 to 100 in the minute."

An interesting case of a similar nature was under my care some time ago in the Western Infirmary. This patient, a lad aged sixteen and a half (I quote from the report of my late assistant, Dr. Charles J. Plumer), was admitted on January 26, 1875, complaining of partial falling of the hair, with occasional sensations of stinging and formication in the skin of the scalp, and increasing distortion of the face, of eighteen months' duration. The patient, who was very tall for his age, and rather thin, but otherwise healthy in appearance, stated that he had always enjoyed good health, with the exception of scarlet fever when fourteen years old, from which he made a good recovery. His occupation, that of an engineer, was laborious, and entailed exposure to alternations of heat and cold; but he had always been well cared for, and his habits were temperate. Eighteen months before admission the hair began to fall out from the middle and anterior part of the scalp; and, about eight months later, he noticed that the skin of the middle of the forehead was somewhat thinner and paler in colour than that covering the rest of the face—the contrast in colour being most marked in cold weather. At this time, also, he began to be troubled with creeping and pricking sensations in the scalp. This change in the appearance of the skin extended downwards gradually over the front of the nose, and to the chin, and the nose became slightly drawn to the left side.

On admission, his general health was good; but slight comparative dulness, and some roughening of the respiratory murmur, were detected at the apex of the right lung in front, and also at the right shoulder. A portion of the scalp (extending from near the crown forwards, about two inches broad and three inches and a half antero-posteriorly) was denuded of hair; on this part, and over the forehead, a little to the left of the middle line, the skin, to the breadth of an inch and a half, was decidedly paler in colour, less easily moved by the subjacent muscles, thinner, and less easily pinched up, and showed more distinctly the inequalities of the bones beneath, than that covering the surrounding parts. The same change was observable on the front of the nose and on the left side of the chin. The nose was drawn slightly to the left side; the left eyebrow was paler in colour and less bushy than the right; the left side of the chin, and indeed the whole left cheek, appeared smaller than the right; and the portion of the tongue on the left side of the dorsal furrow was both narrower and thinner than that on the right. The comparative sensitiveness of

the skin on the two sides of the face was carefully tested (by Dr. Knox), with the following result:—

Parts supplied by the	Nerve . .	Distance between the points of compasses, when <i>two points</i> could be distinctly felt by the patient on the	
		Right side.	Left side.
Supra-orbital	Nerve . .	12-16ths inch.	11-16ths inch.
Nasal	" . .	15-16ths "	13-16ths "
Infra-orbital	" . .	8-16ths "	8-16ths "
Mental	" . .	8-16ths "	8-16ths "
Auriculo-temporal	" . .	1.6-16ths "	1.5-16ths "
Buccinator	" . .	1.6-16ths "	1.4-16ths "
Tongue and side of lip	" . .	7-16ths "	6-16ths "

It was also found that the interrupted galvanic current could be more distinctly felt on the left side of the face generally than on the right, but as well on the affected portions of the skin (excepting the scalp) as on the sound parts of the left side.

No affection of the cornea could be discovered, and he could read equally well with both eyes; nor were the other special senses at all impaired.

There are some points of resemblance between this case and the atrophic lesions of the skin noticed by Dr. Kaposi, in Hebra's "Diseases of the Skin," vol. iii., 1874 (translated by Mr. Waren Tay, and published by the Sydenham Society), who says:—"White scar-like streaks and spots, round or oval, varying in size from that of a bean to that of half-a-crown, are occasionally met with in women who have never been pregnant, and also in men. . . . By the touch, we detect that these streaks and spots are somewhat depressed below the level of the surrounding skin, and that where they occur the skin is thinned. If a finger be passed over the affected part, we obtain the impression that the portions corresponding to the atrophied streaks are situated in a depression or furrow of the skin. . . . They are most frequently met with in the neighbourhood of the anterior brim of the pelvis, over the gluteal muscles, and in the neighbourhood of the trochanters; less frequently on the anterior surface of the thigh, and on the extensor surfaces of the arm." On microscopic examination, he found the epidermic and mucous layers very much atrophied; the latter lay flat on the corium; after addition of acetic acid, the Malpighian layer separated in its entirety from the corium, the surface of which showed an uniform contour without any conical projections. The separated mucous layer showed a similar flat surface, unprovided with depressions for the papillæ, towards the corium. The papillæ, therefore, had entirely vanished. The network of connective tissue and elastic fibres consisted of very thin bundles, between which only extremely few and slender bloodvessels existed. The subcutaneous fat-lobules were devoid of fat-cells; the acini of sebaceous glands were indicated only by isolated roundish nests of molecular, yellowish-brown masses; one or two attenuated hair-follicles were found, with fine hairs, whose root-sheath was made up entirely of flat epidermic lamellæ. No trace of the cells of the outer root-sheath to be seen; no indication of any sweat-glands.

B. S. Schultze, who examined several hundred cases, found that in 36 per cent. of women who had never been pregnant, or who were not far advanced in pregnancy, and in 25 per cent. of tall men, the streaks existed upon the thighs and buttocks. He is therefore of opinion that the rapid growth of the pelvis causes this partial atrophy by stretching the skin; that in women, in whom the pelvis increases chiefly in breadth, streaks occur, having a direction chiefly parallel to the long axis of the body; while in men, in whom the pelvis increases rather in length, the streaks take an oblique course.

3. *Anomalies of Pigmentation.*—The colouring matter, or pigment, of the skin, as is well known, is situated in the mucous layer of the epidermis. If it be present in excess, the skin is proportionately darkened; if defective, it is unnaturally white.

A.—Defective Pigmentation.

The most important variety of this is *Albinismus*. In this condition there is congenital absence of colouring matter in the skin, hair, iris, and choroid. The skin is milky white, the hair white or yellowish-white, and generally long, fine, and silky, and the iris is rose-coloured, the pupil being red. Under these circumstances there is intolerance of light (hence the iris is contracted, and the Albino walks with the

head downwards), and nictation and oscillation of the eyeballs are observed. Such persons are usually feeble and short of stature. This deformity is met with in all races, but most frequently in people of colour, especially among the negroes of the South.

B.—Excessive Pigmentation.

This may be primary or secondary.

1. Primary Pigmentation.

(a) *Lentigo* (freckles).—This is the most circumscribed form of excessive pigmentation, and is due, for the most part, to exposure to the sun; hence it is met with on the face and hands especially, and is most pronounced during the summer months. It is most apt to appear on persons with delicate skins, and in those who are of fair complexion, and especially in red-haired people. It cannot be mistaken for any other affection.

(b) *Ephelis*.—This is a more diffused form of excessive pigmentation, and must not be mistaken for the vegetable parasitic affection—*tinea versicolor*—to be described later on, and which is all the more likely to occur, seeing that the term *chloasma* is by some authors applied to the former, by others to the latter. It is most frequently met with in women during pregnancy, and also in unmarried females between the ages of thirty and the cessation of the menses, as the result of disordered menstruation (*chloasma uterina*). It has the appearance of a dirty yellow or brown discolouration, generally implicating the face, and often extending across the forehead from temple to temple, and from near the eyebrows to near the roots of the hair. The edge of the discolouration is most frequently abrupt and darker than in the centre, and there ought to be no difficulty in its diagnosis.

(c) *Melanopathia*.—This is a streaky brown discolouration, coursing through skin which is of the normal colour. It is generally limited to the shins, being due to sitting frequently at the fire with the legs exposed. In its most typical form it is met with in syphilitic subjects, when the discolouration has a distinctly coppery tint (*melanopathia syphilitica*), but generally it is independent of syphilis.

(d) *Nævus Pigmentosus*.—Moles, as they are popularly termed, are sometimes congenital or nearly so, sometimes acquired. They occur in the shape of circumscribed brown patches, often as small as split peas, and on the face in the gentler sex are often regarded as beauty spots; but sometimes they are of considerable size and irregular in outline, when they are generally situated on covered parts. Not unfrequently, owing to hypertrophy of all the tissues of the skin, they are distinctly elevated, and hairs in greater or less abundance grow upon them (*Nævus spilus*).

(e) *Vitiligo* (*Leucoderma*).—These names are applied to an affection characterised by an absence of pigment at certain parts surrounded by portions of skin in which it has accumulated to an excessive degree, so that brown patches are seen enclosing white ones; in fact, there is rather an irregularity in the distribution of the pigment than an actual defect in its quantity. It is generally more or less localised, the hands, face, and neck being probably the parts most frequently invaded; and when hairy parts are involved, the hair growing from the white patches is devoid of pigment and white. It is most commonly met with in persons of colour, in whom the contrast between the white and brown parts is very striking, giving a piebald appearance to the skin. It is said to be usually congenital or nearly so, but we have met with numerous cases in which it set in in adult life. There is much obscurity surrounding the cause of this curious abnormality, but there is little doubt that it is a neurotic affection, and probably dependent upon perverted innervation of the sympathetic nerve.

(f) *Morbus Addisonii*.—This disease is named after Addison, its discoverer, and in connexion with it one of the most striking phenomena is the pigmentary discolouration of the skin, which in typical cases, as has been well remarked, gives to the unfortunate sufferer the appearance of a mulatto, or of a bronze statue with the gloss removed. The discolouration may implicate the whole of the skin, or only portions of it, in which case there is a gradual shading off of the brown colour into that of the surrounding healthy surface. It is most frequently met with and most pronounced, as a rule, on the hands, face, neck, axillæ, and groins, and

where the skin is naturally dark, as on the penis, scrotum, nipples, and arcolæ; on the discoloured parts frequently patches or specks of a darker colour like little moles are observed. By stimulating the skin, as by applying a mustard-poultice, or by abrading it, as after the application of a fly-blisters, the brown colour is intensified, but if the cutis vera be destroyed, and along with it of course the mucous layer of the epidermis, which is the seat of the pigment, the cicatrix is perfectly white. It often happens that the hair too is implicated, becoming coarser and darker, and similar discolourations are frequently met with on the mucous membrane of the lips, gums, cheeks, and tongue; but there is no alteration in the colour of the conjunctiva or of the urine, so that there is no likelihood of the disease being mistaken for jaundice. It is right to mention—and this fact is not sufficiently well known—that the discolouration in Addison's Disease may be of a patchy character, and identical with that met with in vitiligo, which we have just described. (d) But while in the latter complaint the general health is usually perfect, in the former there are invariably constitutional symptoms, which are striking and characteristic, and generally precede the discolouration. There is gradually increasing weakness and debility; the pulse is feeble, the heart-sounds are weak, and the apex beat may be imperceptible; and as the disease advances, to these symptoms are added anorexia, nausea, and vomiting, which may be persistent, or occurring on the slightest exertion, and faintness is readily induced. But with all this there is usually no emaciation and no fever. The disease is generally supposed to be necessarily fatal, but we have met with cases in which very marked improvement has resulted from counter-irritation over the loins, and from the use of anti-strumous remedies, especially long-continued courses of cod-liver oil in full doses.

The lesion usually met with on post-mortem examination is scrofulous disease of the supra-renal capsules. But other diseases of neighbouring parts may likewise induce it, for it now seems pretty well established that the essential pathological condition is the extension of inflammatory action from neighbouring parts to the solar plexus and semi-lunar ganglion. (e)

2. *Secondary Pigmentation*.—This may ensue whenever there is long-continued congestion of the skin, which has a tendency to induce an excessive deposit of pigment in the mucous layer of the epidermis. This may result—

(a) *From long-continued and excessive scratching*. In that case the diagnosis can readily be made by a careful inquiry into the history of the case, and by observing the presence of a pruriginoid eruption (to be described later on under the head of the Animal Parasitic Eruptions) induced by the scratching.

Or (b) it may result *from a previous eruption*. In such a case we have the history of the preceding eruption to guide us, while the shape and situation of the stains will correspond to the shape and situation of the previous patches. Thus, after eczema, we may have stains at the flexures of the elbows and knees, while after psoriasis we may have them on the extensor aspects of the same joints.

The stains resulting from syphilitic eruptions are usually more persistent than others, more or less rounded, darker, and more distinctly coppery, or, if there is a cicatrix, it is surrounded by a coppery edge. The coppery tint, however, is not necessarily characteristic of syphilis when seated on the legs, because, owing to their dependent position, and to the frequent complication with varicose veins, stains of previous non-syphilitic eruptions may be very dark.

Finally, (c) pigmentary discolourations may result *from applications to the skin*, such as fly-blisters; but in such a case the history, and the seat and shape of the patches, should clear up the diagnosis.

There should be no difficulty in the diagnosis of pigmentary from inflammatory discolourations, for in the latter the colour, which is more or less red instead of brown, temporarily disappears on pressure; there is more or less heat or itching; generally there is some desquamation, and often some elevation.

(d) See paper by the author, "On a Case of Addison's Disease improving under Treatment, and on the Possible Relationship between the Discolouration and that met with in Vitiligo; and with Alopecia Areata" (*Glasgow Medical Journal*, 1879).

(e) See *Glasgow Medical Journal*, January, 1880, pages 72 to 76.

ORIGINAL COMMUNICATIONS.

THE CLIMATE OF INDIAN HILL-SANITARIA:

IS IT BENEFICIAL IN SCROFULA, TUBERCULOSIS,
AND PHTHISIS ?(a)

By Dep. Surg.-Gen. JOSEPH EWART, M.D., F.R.C.P.

IN a short paper communicated to the Epidemiological Society last session, an endeavour was made to demonstrate the comparative exemption of the natives of the Indian peninsula from scrofula, tuberculosis, and phthisis. This freedom was attributed to the nature of the food consumed, the open-air life of the masses of the people, warm temperature, the infrequency of measles, mumps, whooping-cough, scarlatina, etc., and last, though not least, to the remarkable absence of the scrofulous diathesis. On continuing the investigation it was found that the British soldiers and their families enjoyed no such immunity; that, in fact, phthisis was as prevalent among them whilst located in India, as in their comrades and their families at home, or in the soldiers of allied race composing the army of the United States of America. This unexpected result was assigned to the existence of inherited scrofula, liable to be developed into activity by repeated attacks of malarial fever and its manifold consequences, and the prolonged operation of extreme heat, eventuating in a lowered tone of the vaso-motor nerves, chronic indigestion, anæmia, mal-assimilation, and imperfect nutrition. The conclusion arrived at was that the plains of India did not afford an advantageous residence or field of occupation for scrofulous exotics, or for those suffering from incipient or confirmed consumption.

It now remained to extend this inquiry to an examination of the hill-stations as temporary or permanent resorts for the scrofulous or phthisical. For this purpose India may be divided into those regions which are malarious and hot, and those which are non-malarious and cool. The first embraces all the plains and low-lying lands of the three great Himalayan river systems of the Indus, Ganges, and Brahmaputra, and of the subsidiary rivers to the east, west, and south of the Vindhya and Satpura Mountains, or from the sea-level to an elevation of 3000 or 4000 feet. The second region includes mountains ranging from 3000 or 4000 to 7000 or 8000 feet in height or more. In order that a just conception may be formed of the sanatoria comprised in this division, accurate information regarding climate, altitude, barometric or air pressure, thermometric range, humidity, and rainfall is necessary, and the facts bearing on these points, have been liberally gathered from the "Report of the Meteorology of India in 1878," by Henry F. Blanford, F.R.S.; "The Imperial Gazetteer of India," by W. W. Hunter, LL.D., C.I.E.; "Health-Resorts of India," by W. J. Moore, Deputy Surgeon-General, Bombay Army, and Hon. Surgeon to the Viceroy; and supplemented by the author's own experience. Thus are passed in brief review the climates of—Abbotabad, height above sea-level, 4100 feet; Murree, 7507; Simla, 6952; Kussowlie, 6322; Subathoo, 4500; Chakrata, 7051; Mussoorie, 7433; Ranikhet, 6068; Nainee Tal, 6409; Almora, 5494; Darjeeling, 6912; Cherrapoonjee, 4588; Shillong, 4900; Pachmari, 3564; Chikalda, 3656; Mount Aboo, 3945; Mahableshwur, 4500; Nilgherries, 6500; Ootacamund, 7000; Coonoor, 6500; Wellington, 6200; Kotagiri, 6500; Newara Eliya, Ceylon, 6150.

The ground having been cleared by a critical survey of the meteorology of each of these stations, an endeavour is then made to estimate their influence (1) upon persons who have inherited or acquired the scrofulous diathesis; (2) upon those who have been diagnosed, after careful scrutiny, to be the subjects of tubercular growth; and (3) upon those who are affected with phthisis or confirmed pulmonary consumption.

1. *The Influence of Residence at Hill-Stations upon those who have Inherited or Acquired the Scrofulous Diathesis.*—It may be assumed as proved that almost all the hill-sanatoria enumerated are sufficiently elevated, temperate, and drained to be free from the generation of malaria. They are all above 3000 feet high, beyond which altitude, according to Parkes, the malarial poison, germ, or bacteria, as the case may be, does not appear to be reproduced in India.

Permanent residents of all races, at these elevations, enjoy immunity from paroxysmal fevers. Persons suffering from these diseases contracted on the plains, provided no enduring organic mischief has resulted, are cured by residence in these climates. When recurrent attacks do occur, there seems to be no need to assign them to malaria generated on the spot. There would appear to be sound reasons for believing that this tendency to repetition—characteristic of this class of fevers—especially after exposure to damp, vicissitudes of temperature, and great privation, does not always of necessity imply a fresh imbibition of the malarial poison. It often happens that individuals who have never had ague at all, or having had it, have not been attacked with it for many years, are, after having gone to the hills or returned to this country from malarious districts, liable to suffer from primary or secondary paroxysms of the quotidian or tertiary type. Then, in all the hill-stations, the temperature in the shade—modified according to altitude, latitude, clouds, humidity, and other agencies—is seldom extreme and exhausting during the summer, and though in many of them the rainfall is considerable, in only a very few—such, for example, as Cherrapoonjee and Mahableshwur—is it ever so continuously excessive, even during the monsoon, as to prohibit, at some period of nearly every day, daily open-air exercise. In the hot months, at all the stations of the higher altitudes—Simla, Mussoorie, Darjeeling, and the Nilgherries—it is always needful to have the head thoroughly shielded from the direct rays of the sun; and at those of much lower elevation, such as Pachmari, Chikalda, and Mount Aboo, the same indispensable precaution must also be enforced during the winter months. The cold weather of all these sanatoria, though in some, and particularly at those situated on the spurs of the Himalayas, accompanied by ice, frost, and snow, proves to those in moderately fair health, and in a position to be much out in the open air, bracing, exhilarating, and healthy. The thermometric range in the hot and cold weather, though much greater than would be beneficial in organic disease of any of the prime organs, is not sufficiently forbidding to warrant an adverse opinion of these climates in the case of persons who are regarded as labouring simply under the taint of the scrofulous diathesis. Their elevation above the sea necessitates increased expansion of the chest-walls and pulmonary cells, in order that the required amount of oxygen may gain free and uninterrupted access to the blood. At high altitudes the air is attenuated, or rarefied, as we say, and that the blood circulating through the lungs may be furnished with the requisite quantity of oxygen to meet the physiological demands of the system, a greater volume must be passed into these organs at each inspiration. In response to this requisition, the reserve expansibility of the thorax and pulmonary cells is speedily developed. Until an equilibrium between the demand and supply is established, the wants of the blood and the system are at first met by accelerated respiration. "Whether, *ceteris paribus*, more oxygen actually enters the lungs in high than at low altitudes, has, not, so far as my knowledge extends, been definitely determined." If, however, the comparison be made between these temperate elevations and the plains of India, the legitimate presumption would be that as residence at hill-sanatoria is conjoined with the capability of enjoying augmented physical exertion, the supply of oxygen would be proportionately increased. Thus the vigour and tone of the respiratory and other muscles throughout the body are promoted and conserved; the health standard of the general and special nervous systems is improved; the respiratory and digestive functions and those of the eliminatory organs are perfected in visitors to the mountain climates of India. In addition to these advantages, the scrofula-breeding diseases of childhood and youth are not so prevalent as they are in Europe—a gain of much importance to the young. Thus, it may be concluded that residence at most of the hill-sanatoria in India is conducive to the promotion and conservation of health in most persons who may have inherited or acquired the taint of scrofula. With the exception of Mahableshwur and Cherrapoonjee, they may live at these places with a fair chance of deriving some benefit all the year round. If the monsoon season appears to be prejudicial to some at the Himalayan stations, the injurious effects may be modified, mitigated, or prevented by a judicious selection of a health-resort on the Nilgherry Mountains.

2. *The Influence of Residence at Hill-Stations upon those*

(a) Paper read before the Epidemiological Society on January 4, 1882.

who are the Subjects of Tubercular Growth.—Provided there is no pneumonic inflammation in the vicinity of the growth at the upper part of the lungs, there has been no prior structural disintegration, and no great amount of bronchial irritation or discharge, the summer season up to the beginning of the monsoon may be viewed as beneficial at all the sanatoria. It is most useful in cases where the tubercle is quiescent. The expansion of the lungs from altitude and the consequent rarefaction of the air, and the increased power of taking exercise in the open air, are advantageous in a high degree. None of these stations are, according to the author's experience, suitable in the rainy season. The very small thermometric range then prevailing is more than neutralised by the extreme atmospheric humidity. Persons belonging to this group bear badly the much augmented range in the winter months. By way of interpolation, it may here be mentioned that, for cases of simple tubercular growth or the taint of scrofula, a voyage to India to escape the rigour of an English winter may often prove far more serviceable than any of the marine sanatoria on either of the shores of the Mediterranean. The long sea-voyage there and back, in any of the comfortable steamers now available, in warm and genial weather, amid ever changing surroundings and associations, and, after arrival, easy travelling to visit places of historic interest on the plains, are calculated to improve and preserve the general health. The journey should be commenced in October, the arrival in India timed to be in November, and the re-embarkation from Calcutta or Bombay about the beginning of March. The intervening time after arrival in Europe and the beginning of June might be passed in some of the congenial resorts in Italy or France.

3. *The Influence of Indian Hill Climates upon those who are affected with Confirmed Consumption or Phthisis.*—There is an almost universal consensus of opinion among British and Indian medical officers, condemnatory of hill-stations in cases of pulmonary consumption. From the earliest times when soldiers were sent to the hills with phthisis, it was noted that the disease became aggravated, and the end expedited. The rule has long been, and now is—practically amounting to an authoritative order—to avoid the transfer of all phthisical invalids of the European Army and others of the various services in India to any of the hill-sanatoria. A few years ago, on reports being received of the favourable influence of high altitudes in some parts of Europe in consumption, some physicians ventured to advise patients to try Coonoor in the Nilgherries. The result was always disappointing. The reason of this is not difficult to divine. Healthy and invigorating as most of the Indian sanatoria are for the purely scrofulous during, perhaps, the entire cycle of the seasons, and for those suffering from tubercular growth in a comparatively quiescent condition in the hot months, they are just the reverse in active phthisis. Here, instead of our only having the scrofulous diathesis or tubercular deposit in a somewhat inactive state to deal with, we have superadded acute or chronic pneumonia, and bronchial inflammation tending to, and eventually terminating in, disorganisation and disintegration of the structures immediately involved. Now, in a case of this kind, the earliest effect of high altitudes—and this is in proportion to the elevation—is to cause the inflamed, irritable, and struggling lung to do more work than it was, at lower levels, called upon to perform. The increased expansion of the air-cells is needed to allow of a sufficient ingress of oxygen, in a given period of time, into the pulmonary circulation from a rarefied atmosphere. The consequence is increased irritation and inflammation around the tubercular growth and in the associated bronchial mucous membrane, and an aggravated tendency to repeated attacks of hæmoptysis. According to Dr. Theodore Williams, the circumference of the chest has been known to have increased three inches during the season at Davos. A lung in the condition above mentioned does not require more movement than can be averted. This is not conforming to the principle which guides and befriends the surgeon in the management of injuries and disease. Nature here points the way, and he, in ready compliance with her dictates, is constantly invoking the co-operation of his best ally—physiological rest. What does the physician do in pleurisy, pericarditis, or pneumonia? Why, by means of food, medicine, and the recumbent position recommended, he is, in reality, practically applying this great principle of repose in the hygienic and therapeutical

treatment of the diseased parts; and were it open to him to use mechanical appliances to accomplish this end more perfectly and more surely, he most probably would not hesitate to have recourse to them.

Doubtless there are cases of chronic tubercular affection of the lungs, in which prior inflammatory action has subsided, and the patients are in much the same condition as those who are the subjects of simple and quiescent tubercular consolidation. There is another rarer set of cases in which cicatrization or cretification has advanced far to establish the repair of the damaged lung. In such cases as these hill climates are suitable in the summer months, partly on account of the greater expansion of the pulmonary cells, and partly from the immensely increased facilities for living an open-air life, and for obtaining exercise in a mild, genial, pure, and antiseptic atmosphere.

The conclusions arrived at are—*first*, that the hill climates of India are beneficial to persons afflicted with scrofula; *secondly*, that they are useful in the hot months—(a) in uncomplicated and simple tubercular consolidation, (b) in tubercular affections, in which previous inflammation has subsided, and (c) where this is advancing to repair by absorption, cretification, or cicatrization; and *thirdly*, that they are injurious probably at all seasons, but most prejudicial, during the monsoon and winter, in all cases of active and advancing pulmonary consumption.

CASES OF

SUSPENDED CEREBRAL FUNCTION OCCURRING AMONG THE PHENOMENA FOLLOWING EPILEPTIC FITS.

By JAMES RUSSELL, M.D., F.R.C.P.

(Concluded from page 4.)

In the next case, perception seems to have undergone a brief occlusion in two of its manifestations. As in the two preceding cases, tactile sensibility was interfered with; and with this infirmity, as in the first case, was complete speechlessness and some hemiparesis. I have no note of the condition of taste, nor of smell, unfortunately. In a former attack the loss of speech seems to have been very protracted, and with it there was a much greater degree of paralysis than on the present occasion.

Case 3.—A Former Attack of Loss of Speech, with Left Hemiplegia.—At present, Speechlessness, with Suspended Tactile Sensibility.

J.P., aged thirty-two, an old epileptic. Eight years ago he lost his speech after a fit, and was weak on his left side; it was four months before he recovered his arm and leg, and nearly that time before he could talk.

He had fallen into a fit ten days before admission; he afterwards told us that after the fit he could hear, but was unable to see, feel, or speak. When admitted, however, he presented a remarkable condition of suspension of tactile sensibility in all parts of his body, with some muscular weakness, and entire loss of articulating power; all the other perceptive faculties being fully retained. He could not be induced to speak by any provocation: threatened with deprivation of food unless he would ask for it, he held up his hands in an imploring attitude, and pointed to his throat, afterwards making so much noise by rattling a neighbouring partition that we were compelled to take off the embargo. The nurse laid imperative orders upon him to give notice of his wants, and she attributed the absence of involuntary evacuations to this circumstance; on what evidence does not appear.

He obeyed directions freely, gave us a good deal of information by making signs, but all attempts—some of a severe character—failed in eliciting evidence of sensation. He allowed a roll of paper to lie on his cornea without winking, though on the preceding day it had been observed that the feather of a pen in his nose or throat produced movements of the head and neck, and attempts at retching.

After some days, considerable alarm excited by a suggestion to fire his back gave rise to a fair vocal imitation of "I don't want it done." Two days later he uttered a series of "Tut, tut, tut," with much manual gesticulation and an earnest expression of face. A week later he spoke a few phrases

distinctly. When he left the hospital at the end of a month, sensibility was not fully restored to the left side.

The next case presents us again with a very typical example of reduction to a state of automatism, characterised by considerable, though not complete, loss of the perceptive faculties, and reduction to a merely emotional condition. We again meet with loss of speech, but the speechlessness was in striking contrast with the form which was observed in the first case, and probably also with that presented in the second and third. In the present instance it plainly depended on loss of intellectual language, and formed a part of the general state of imperception. In the first case, speech was preserved, though utterance was suspended. Emotional language was well developed; and, indeed, the history offers a striking illustration of the distinction between intellectual and emotional methods of speech in "aphasia"—a distinction to which Dr. Hughlings-Jackson long ago drew attention in connexion with that subject. The emotional (or, rather, automatic) expression extended to the utterance of several ordinary phrases, besides the outburst of passionate utterance, as is not unusual under such circumstances. It is of some interest to notice that in the second attack from which the patient suffered there was hemiparesis of the right side, in addition to the loss of speech. It will not fail to be remarked how strongly the emotional element was developed in the patient's history.

Case 4.—Three Successive Attacks of Imperception, with Loss of Intellectual Language after Epileptic Fits, in an Emotional Subject—Emotional Language Fully Developed.

J. S., aged forty-two, described as a temperate man, not given to the use of bad language unless violently provoked, was admitted on November 3, 1880. His wife stated that he never had a fit before the present occasion. On the evening of the day preceding his attack he received a letter telling him that a sister, to whom he was greatly attached, was dying; he was much affected by the news. On the evening he had a violent quarrel with his wife about some unimportant occurrence, and struck her, but expressed to her his regret in the morning, and went to his work as usual. Whilst working at his lathe, his hand was caught in the strap, and a piece of skin was torn off; about two hours afterwards he fell down in a fit unconscious, and was immediately brought to the hospital. In the course of the afternoon he partially recovered, and seemed to recognise his wife, but could only articulate "I wish," repeating the words continually. As she was leaving the ward, however, he said, "God bless Batt" (believed to mean his sister Bess).

I saw him on the following morning. He presented a perfectly natural expression of face, yet was quite unaware of what was passing around him; he did not turn his eyes to the speaker, nor move his head when addressed. His pupils were small, and did not dilate when light was excluded. He swallowed readily, but had passed his urine in bed. His limbs and body offered an automatic resistance to passive movement. Whilst raising him from the bed the raw place on his hand was touched, on which he struck out with a most angry expression of countenance, using very bad language; yet half an hour later, on his wife coming, he recognised her, and repeated the words, "I'se kite," "I'se site," incessantly. During the night he was troublesome and abusive.

On the morning of the 5th he said to his wife, "What is it, Mary?" but gave no coherent acknowledgment of anything she said. When she was going he exclaimed, "I'll go back with you!" and it was very difficult to keep him in bed; yet he was manifestly unable to understand her when she told him that she would go home and bring his clothes. He had begun to look about him. His pupils were less contracted.

Thenceforward he slowly regained the perceptive faculty, but was not fully recovered when he left the hospital, by his own desire, on December 23.

He was readmitted on March 2. He had been found by his wife "squatted down, all of a heap," on the kitchen floor, with the kettle, which he had gone to fill, between his legs. His right arm and leg were helpless, and he was unable to speak. He passed his evacuations involuntarily. I did not see him for two days; he had then regained power in his right limbs, and in other respects his condition was a copy of that already described. At the end of the month, whilst slowly recovering, he heard that his wife was ill; he was immediately thrown back, and began to talk unintelli-

gibly; he was strange, and ate up all the food left by the other patients after their dinner. By the evening he had become rational.

In this second attack, at admission his temperature was 101.4°, and remained so through the day; it fell to 97° on the following morning, and by evening had regained the normal level. On the occasion of his first admission his temperature was 97°, gradually rising to 100° on the third morning, and continuing above 99° for three days afterwards. The patient left the hospital on April 17, but was admitted a third time on May 9, leaving on May 14. The notes of the third illness have been mislaid; I can therefore only state that I do not remember any particular in which the symptoms differed from those which characterised the two preceding attacks.

A series of cases closely resembling those which I have now detailed are reported by M. Ball, of the Paris Faculty, in the *British Medical Journal*, October 30, 1880, under the title of "Functional Ischæmia of the Brain." In explaining the symptoms M. Ball supports the opinion that the foundation of the malady is "simple spasmodic ischæmia," from "contraction of the vessels supplying certain provinces of the encephalon." With much to be said in favour of the possibility of such a condition, (a) it yet appears not inconsistent with analogy to suppose that intense emotion, and probably certain other unfavourable nutritive conditions, may of themselves be amply sufficient to produce a state of depressed power amounting to temporary suspension of function. Such an explanation has been advanced with great plausibility by Dr. Hughlings-Jackson in accounting for the so-called epileptic hemiplegia which often succeeds the convulsions in unilateral epilepsy, e.g., from cerebral tumour. The phenomena, too, of hysteria, which Dr. Wilks has ably referred to suspended function in certain regions of the brain, run parallel with many of the symptoms which I have been describing. Of course a previously morbid condition of the nerve-tissue must be granted, but this concession is equally required in any case. It is also fair to add that to explain the phenomena by vascular contraction does but thrust the difficulty a step further back: an abnormal functional state is only transferred from a tract of the cerebrum to the cells of the vaso-motor centre; these cells must be supposed to have resigned functional activity, for the time, and thus to have lost their control over the local circulation.

THE BRESLAU OBSTETRICAL CHAIR.—Prof. Freund of Strasburg, who had been invited to fill the chair of Clinical Midwifery and Gynæcology held by the late Prof. Spiegelberg, has, it is said, declined the offer on account of the defective condition of the gynæcological clinic.—*Petersb. Med. Woch.*, January 7.

INOCULATION OF TUBERCULOSIS.—Dr. Orlando Robinson, in an article in the *Philadelphia Med. Times*, December 3 (based on a prize thesis of the Medical Faculty of the University of Pennsylvania), arrives at the following conclusions:—1. Tuberculosis artificially produced in animals is not due to a specific virus. 2. To produce it in animals inoculation with tubercular matter is not necessary. 3. Failures to produce tuberculosis by inoculation with substances other than tubercular are in the same proportion as failures with true tubercular matter. 4. The introduction under the skin of any foreign substance capable of exciting an inflammation or any traumatic injury can produce tuberculosis, provided that the animal is of scrofulous habitus. 5. Scrofulosis in animals is expressed by an inflammation terminating in the production of a cheesy mass. 6. Animals not generally scrofulous (cats and dogs) may become so, and then only can tuberculosis be produced in them. 7. Miliary tubercles are simply compressed aggregations of cells of any simple granulation tissue, ill-nourished, into small nodes. The arrangement into nodes represents a true ante-mortem act of cells, to which any young inflammatory connective tissue is liable. 8. Under favourable conditions of nutrition, tubercles in animals may undergo a higher organisation, becoming converted into harmless small fibromata. 9. Tubercles artificially produced in animals are histologically strictly identical with those occurring in man.

(a) In quinine amaurosis Dr. Gruening has observed contraction in the arteries of the optic disc.—*Archives of Ophthalmology*, March, 1881.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

EAST LONDON HOSPITAL FOR CHILDREN.

DEFECTIVE DEVELOPMENTAL CONDITIONS AS SEEN PRINCIPALLY IN CHILDREN.

(Under the care of FRANCIS WARNER, M.D. Lond., M.R.C.P.)

GROUP I.

CASES WITH EVIDENCE OF CONGENITAL HEART-DEFECTS ASSOCIATED WITH OTHER MALFORMATIONS.

Case 1.—Heart-Defect—Fingers Clubbed—Cyanosis—Palate Cleft.

ADA D., aged five years; a cyanotic child, with marked clubbing of the fingers and toes. There was occasional slight irregularity of the heart's action. A systolic bruit of blowing character was heard all over the cardiac area, but was most intense over the third left costal cartilage; it was traceable into the axilla, and there became faint, but was more audible in the left vertebral groove at level of second dorsal vertebra. The apex-beat was under the nipple; the heart's impulse was of good strength; the area of heart-dulness was distinct, and of normal size. Pulse feeble, slightly irregular, 70. Lungs clear; no œdema anywhere. The child was dull in mental powers, and had always been backward; she never had convulsions; there were no signs of rickets. The palate was cleft.

This girl was the fifth child in the family; the parents appeared healthy, and no special trouble occurred to the mother while carrying this child; she had had no miscarriages. The other children appeared healthy, but a boy born the last previous to patient died at two months from "erysipelas."

Case 2.—Heart-Defect—No Cyanosis—Deformity of Hands—Epilepsy in Family.

Herbert T., aged three years. There was marked deformity of the right hand. There was no apparent defect in the bones of the forearm or carpus; muscles, nerves, and vessels appeared normal on either side; the deformity was only in the metacarpal and phalangeal bones. The most noticeable feature was the apparent division of the metacarpus into two parts, having the little finger and ring finger complete on the inner part, and on the outer side an index finger and thumb well shapen; but there was no middle finger, and the two portions of the hand spread widely apart; the nails were all perfect. No symptoms pointed to heart-disease. On examination there was no hypertrophy of the heart detected; its apex-beat was displaced a little upwards and outwards behind the nipple; there was no epigastric pulsation; the area of cardiac dulness was normal. A systolic bellows murmur somewhat varying in intensity was heard at the base, loudest towards the aortic cartilage and right sterno-clavicular joint, also very audible over the pulmonary cartilage, but not at the apex or at the back; second sound clear. Pulse good; no cyanosis; no clubbing of fingers.

The maternal grandfather, aged sixty, is epileptic, and has been so since he was a boy. No other case of deformity is known in the family. The following is the history of the family, taken January, 1882 (note, patient first came under my observation in January, 1880). The mother has had ten pregnancies:—1. Still-born at eight months. 2. Born at full term; died at seven weeks old. 3. George, aged sixteen years, now in an asylum; has been under my care for epilepsy; he was born at full term. 4. Born at full term; appeared healthy; died at four months old in a fit. 5. Born at full term; appeared healthy; died at eleven weeks. 6. Joseph, born at full term; aged eleven years; appears healthy. 7. Richard, born at full term; aged eight years; epileptic; now under my care. 8. Herbert, born at full term; now aged five years; the patient described. 9. Miscarriage, at three or four months. 10. Sydney, aged fifteen months; born at full term; appears healthy. The mother while carrying patient had no special fright, but says she dwelt much on accounts of the "Wainwright murder." There

appears no proof that this caused any illness or affected the child.

Case 3.—Mitral and Tricuspid Disease—No Cyanosis—Malformation of Hands.

Charlotte W., aged forty-six years, an in-patient at the London Hospital on account of attacks of palpitation. She had good health till a year before admission, when she began to suffer from attacks of palpitation. When the hands were held out an obvious deformity of posture was seen. In either hand the condition was the same: there was a general tendency of all the fingers to bend over to the ulnar side; in each thumb the first phalanx was naturally bent inwards at right angles to the metacarpal bone, while the second phalanx was extended back upon the first, thus producing a peculiar crooked position of the thumbs. There was no joint affection and no rigidity. There appeared distinct evidence that this condition had existed from birth. The pulse was feeble and irregular. There was one systolic bellows murmur heard loudest to right of sternum over fourth cartilage. A second systolic murmur presented the ordinary characters of a mitral regurgitant bruit. The two bruits were of a different pitch. Dr. Sansom, who kindly saw the case with me, agreed that we probably had a defect of both mitral and tricuspid valves. She has not had rheumatic fever; but had scarlet fever when sixteen years old. Cardiac symptoms have only troubled her about a year, during which time she had worked very hard in a warehouse. (I am indebted to Mr. Black, clinical clerk, for his care in recording the notes of this case.)

Case 4.—Heart-Defect—Congenital Cyanosis—Left Hemiplegia, dependent upon Defect of Right Hemisphere—Bell's Paralysis on Right Side of Face, with Deformity of Right Ear.

Emma B., aged one year and nine months; a very ill-developed, cyanotic child. The cardiac impulse was forcible, suggesting hypertrophy of the heart, and the apex-beat was slightly displaced outwards; the area of dulness was well-defined, but not enlarged. A loud systolic bellows murmur was heard all over the præcordial region, but with greatest intensity over the second left cartilage. Pulse was full and strong. Cyanosis was very pronounced and constant. The fingers and toes were slightly but distinctly clubbed. The child died in Darent Asylum. Certain convolutions of the brain were found wasted; leave could not be obtained to examine the heart. Dr. F. Beach published (a) the case in *extenso* in conjunction with myself. The skull was not deformed, but the right external ear was very rudimentary, smaller than the left, ill-shapen, and adherent to the skull, the tragus being the only part fairly well formed. The meatus was large in its vertical diameter; there was purulent discharge from it. The left ear was well shapen, but was also the seat of otorrhœa.

Case 5.—Heart-Defect without Cardiac Symptoms—No Cyanosis—One Ear Deformed.

Edward W., one year old, was brought to me for advice as to an ear deformity in December, 1879. Neither signs nor symptoms directed attention to the heart, but it was examined in routine. The right ear was well formed. On the left side the external ear was very small, in vertical measurement one inch, as against two inches on the right side; all parts were present, but small. The upper portion of the external ear was drawn downwards, but it could be lifted up. There was a loud systolic bellows murmur of somewhat rasping character in the pulmonary area, also heard very distinctly at the apex, and but faintly heard at the angle of the scapula. The second sound was clear, both the aortic and probably also the pulmonary. The heart's impulse was forcible, and a thrill was felt at the apex.

At present (October, 1881) the bruit remains unchanged; the right mastoid cells have not developed, but the external ear, while retaining its peculiarities, has grown somewhat.

Case 6.—Congenital Heart-Defect, with a Varying Bruit—No Cyanosis—Patency of Inter-auricular Septum—Want of Power in Legs from Birth, with some Rigidity of Left.

Millicent L., aged six months, came as an out-patient, January 21, 1880. The mother complained that the girl was

(a) *Brain*, January, 1881.

“absent in her mind,” that her legs felt as if useless; she had cough, and was emaciated, and restless at night.

There was no cyanosis, but the heart was especially examined on account of the evident congenital want of power in the legs. A very loud systolic bellows murmur was heard at the apex of the heart, well conducted to the axilla; it was also heard in the pulmonary area. The second sound was normal. The heart's impulse was fairly strong, especially as felt at the epigastrium; the area of dullness was very pronounced, and the right ventricle appeared to be hypertrophied, as the impulse and dullness extended to the right of the median line. The pulse was fairly strong. The fingers and feet were not clubbed; nails normal. The head measured fifteen inches in circumference; the fontanelle was depressed; the palate was high arched; the ears were well shapen. When the limbs were examined very little movement was seen, especially in the left leg, which hardly moved on tickling. Both legs were very thin, the left not more wasted than the right, but quite useless; occasionally a little spontaneous movement in it was seen. On tickling the foot, the leg became rigid from spasm. But little movement occurred in the fingers and toes. There was more spontaneous movement in the right leg. She would at times grasp one's finger, and the movements of the hands and fingers appeared natural; the arms were fairly moved also. The spine appeared normal. The child was feeble, but could hold up her head. There was no squint or facial palsy. The child was born at full term. While carrying this child the mother was but ailing; she said the child lay too much towards the right hip; she had cough, and between the third and fourth months was frightened, but this did not make her ill; the labour was long.

History of Pregnancies.—1. A boy, aged sixteen years; healthy. 2. A boy, aged twelve years; has abscesses. 3. A boy, aged nine years; healthy. 4. A boy, aged seven years; seems healthy. 5. Boy, aged five years; seems healthy. 6. Boy, aged three years; seems healthy. 7. Miscarriage. 8. Patient. When seen again, February 5, the bruit was not audible, but the cardiac impulse and beat of the right ventricle in the epigastrium were as strong as before. The child was ill, emaciated; resonance over the lungs was impaired, crepitations over the lungs were heard, but the pulse continued good. She was admitted and died.

Post-mortem.—Double hydrothorax ; lungs congested and in parts collapsed. Liver, spleen, kidneys, and brain appeared normal. The only malformation in the heart was an opening in the inter-auricular septum large enough to admit the tip of the little finger ; this was below the fossa ovale, which was closed. The four sets of valves were perfect, and the cavities, except as described, were normal ; the vessels were normal, and the ductus arteriosus closed. It seems probable that the bruit was caused by the passage of blood from the left to the right auricle ; there being no cyanosis, it is not likely that blood passed from the right to the left auricle. This, of course, supposes that the tension in the left auricle was usually greater than in the right ; when, however, the lungs became congested and œdematous, the tension would naturally rise in the right auricle and right side of the heart. This would check the passage of blood from the left to the right auricle, and accounts for the disappearance of the bruit when the child was last seen.

Remarks on Group I.—This series of six cases illustrates the concurrence of congenital defect of the heart with other deformities, e.g., cleft palate, defects of hands, ill-formed ears, congenital defect of brain. Of this latter many examples might be added, and I propose at another time to give more examples of concurrent defects of heart and nerve-centres. In some of these patients the heart was specially examined, not on account of any signs of heart-defect, but in the search for examples of concurrent congenital defects. Œdema was absent in all these cases. Cyanosis was present in Cases 1 and 4, and absent in the other four cases of this group.

(To be continued.)

LOTION IN PRURIGINOUS AFFECTIONS.—M. Lailler recommends the following:—Carbolic acid 2 parts, neutral glycerine 5 to 10 parts, distilled water 100 parts. It should be applied either by means of compresses soaked in the lotion, or the lotion may be administered by pulverisation.—*Union Méd.*, January 10.

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Medical Times and Gazette.

SATURDAY, JANUARY 21, 1882.

THE UNIVERSITY OF LONDON.

THE ordinary half-yearly meeting of Convocation of the University of London was held on Tuesday, the 17th inst., Dr. Wood occupying the chair, in the absence of Dr. Storrar through ill-health. Two matters of much interest engaged the attention of the House, namely, the nomination of three persons for the selection by the Crown of a senator, and the adjourned debate upon the admission of female graduates to Convocation. The nomination to the senatorial list was on this occasion of more than ordinary importance on account of the attitude of the Faculties of Arts and Laws. Hitherto an understanding has existed in the University that the nomination shall be alternately in the hands of the Faculties of Medicine and Science, and of the Faculties of Arts and Laws; and this arrangement has been attended with the happiest results, canvassing and contests of every kind being thus avoided. For some reason, unknown to us, a certain section of the Arts and Laws graduates persistently disregarded this understanding on the present occasion, and "ran" Mr. Newth for nomination against the medical nominees, Dr. George Buchanan and Dr. Robert Barnes. It was probably an error on the part of the graduates in Science and Medicine to allow two prominent members of the University belonging to their Faculties to divide their votes in this manner; but this unfortunate circumstance does not appear to have had anything to do with the action of the other Faculties in compelling a contest. Happily the result of the poll was to place the four nominees in the following order:—Buchanan, 617; Newth, 530; Barnes, 388; Carey Foster, 213: thus securing the majority to one of the medical graduates. Dr. Buchanan will in all probability be selected by Her Majesty to fill the seat in the Senate rendered vacant by the death of Dr. Billing, who, we may remark, was one of the few remaining original members of that body. Notwithstanding the result, it is a subject for regret that a departure should have been made from a most excellent arrangement within the University, and a beginning possibly made of a strife which

can be attended with only the worst results. The debate upon the question of the admission of women-graduates to Convocation and all its privileges had been adjourned from the last meeting of the House in May, 1881. The leading motion before the House included in as many words the privilege of voting for a member of Parliament; and thus the members of the University of London found themselves face to face with a question of the first importance in social politics. The discussion was long and well sustained, chiefly by the Arts and Law graduates, an amendment having been moved to the effect "That female graduates be admitted to Convocation"—simply. This apparently more temperate proposal was finally carried, the original motion having been withdrawn. But it is obvious that if women-graduates are "admitted to Convocation," the privileges which they are entitled to enjoy do not end with meeting their fellow-graduates twice a year, and constituting a House where the affairs of the University may be discussed. When the University of London was considering the question of the admission of women to the examinations for its degrees, we took occasion to warn it that admission to Convocation and all its privileges must in all fairness follow graduation. The first step was, however, taken at that time. The second step has now followed, and, if we may judge by the amended terms of the resolution, this second step is of a hesitating, halting character. Convocation appears to be alarmed at the pace at which it is moving; and the next stage in the development of this very interesting social experiment will be watched with much interest. On the motion of Dr. Pye-Smith, and after a long debate, it was resolved to request the Senate to consider the advantage of constituting boards of studies in the University, one for each Faculty, to advise the Senate on matters connected with the detail of examinations, and to form a medium of communication between the Senate, the examiners, and teachers.

POISONING BY ACONITE IN INDIA.

LAST week we drew attention to the general features of poisoning by aconite, and we then indicated that, with regard to certain species at all events, our Indian medical brethren were far better authorities than ourselves. We accordingly now desire to bring under the notice of the public in this country the large body of facts in illustration of this subject which are contained in Dr. Chevers's "Manual of Medical Jurisprudence for India" (edition of 1870), and in Dr. William Palmer's "Practical Observations on the Means of Detecting Dhatoora and Aconite administered with the intention of inducing Stupefaction, Intoxication, and Death." As these two works were published in Calcutta, and are not frequently to be met with in this country, (a) we shall give a brief notice of their contents. The poisonous aconites are much employed by criminals in India and Burmah, and probably also, to some extent, in China. The aconite roots commonly in use in India are, according to Hooker and Thomson, those of the *A. ferox*, *palmatum*, and *luridum*. Aconite root is best known near Calcutta as *Kath-Bish*, in Behar as *Dakra*, in the neighbourhood of Dacca as *Meetha-Bish*, and in the North-Western Provinces as *Meetha-Teelia*. In the Taleef Shaleef it is called *Beechnak*. Birdwood gives its Telugu name as *Ativassa*. In the Bengal Presidency it is very generally known as *Bish* and *Bishnak*. Sir William O'Shaughnessy Brooke mentions in his "Bengal Dispensary" that the roots are sold in every bazaar in India, and may be purchased in large quantities for about ten annas (one and threepence) the seer (two pounds). Many years sub-

sequently Dr. Chevers found its bazaar price to be about two rupees (four shillings) a pound. Aconite is much employed by native practitioners, chiefly in the treatment of leprosy, fever, cholera, and rheumatism. A preparation of the roots which grow in the hill districts of India is much used by the hill men to poison arrows for the destruction of wild beasts. The author of "Notes on North Cachar" says that the *panjies* (fine splinters of bamboo, placed obliquely in the ground so as to wound the feet of an attacking party) employed by the Kookies in the defence of villages used to be poisoned when the feuds between the tribes were very fierce. The poison was probably aconite. Dr. J. Berry White, of Debroghur, who is now in England, on his first appointment in the Indian Medical Department, went in medical charge of a detachment of the Assam Light Infantry Battalion on service against the Abors. Several of his native soldiers having been wounded with poisoned arrows, he, with noble self-devotion, sucked the wounds, and suffered in a marked degree from the numbness of the lips and tongue which characterises aconite-poisoning (Chevers, page 138). A few days ago we mentioned this fact to an officer who was engaged in the affair against the Abors. He fully confirmed the above account of Dr. White's most heroic conduct—for which he deserves, even thus late in the day, every honour the Government can bestow upon him. Captain Walter Sherwill mentions, in his "Notes upon a Tour in the Sikkim Himalaya Mountains," that the poisonous effect of the aconite is so great that a Lepcha died at Darjeeling, having, while crossing the hot valleys, allowed the root, which was carried over his shoulder in an open cane basket, to rub against his moist naked body. Sufficient poison was thus absorbed to cause his death. Mr. Brett introduced about half a drachm of dried aconite-root into an incision an inch long over the glutæus maximus of a dog, and in a few minutes the same quantity was placed in an old wound. Nothing apparently occurred during the first hour and a half; after which the animal was seized with violent spasmodic action of the stomach, ejecting nearly its whole contents. It appeared to suffer great agony in its abdominal viscera, twisting its body in every direction, and foaming at the mouth. The pupils were contracted, pulse quick and small. It expired after a collapse of fifteen minutes. The liver was found highly inflamed (?), as was also the cardiac half of the internal membrane of the stomach, and the peritonæum covering the liver, stomach, and large and small omenta.

In a tank of water destined for the use of part of the British Army, on a halt in pursuit of the retreating enemy, in the first Burmese war, the water had been poisoned by the *Aconitum ferox*, bruised and thrown in by the Burmese before they evacuated the place. Undoubtedly fatal consequences would have ensued had not Dr. Wallich discovered it. Dr. Wallich says of the *Vishavish* or *Bish*, that the Gorkhalese pretend that it is one of their principal securities against invasion from the low countries. We have an allusion to this mode of defence in the narrative of R. Fitch, who visited India early in the seventeenth century, who says that he went from Bengala to the country of Couche (Cooch Behar), where, "in time of warre they poyson all the waters." The remark was made to Dr. Chevers by one well acquainted with the country, that this practice is by no means unknown in peaceful Bengal. Well-poisoning has been practised in China. The Saracens poisoned wells in the Crusades, and upon the first outbreak of the black death in 1348, thousands of unoffending Jews were burned on suspicion of poisoning the wells. A number of *Mercurius Britannicus*, published during the height of the Civil War in 1664, states that a like atrocity was perpetrated by some of the infuriated partisans of Dunnington, in Yorkshire.

(a) There are copies of Dr. Chevers's work in the libraries of the Colleges of Physicians and Surgeons in London. Dr. Palmer's monograph is a reprint from the *Indian Medical Gazette* for 1868, which will also be found in the library of the College of Surgeons.

We need scarcely add that all the rumours which have currency in troublous times are not history.

The Road Poisoners, who took the place of the Thugs when the Government stamped out systematic Thuggee by the Phansigars of India, did not frequently employ aconite, probably because it does not produce insensibility as datura does. In his "Cases of Food Poisoning in the North-Western Provinces of Bengal, with Remarks on the Professional Poisoners of India" (*Indian Annals of Medical Science*, No. XVII., 1864), Dr. James Irving, however, states that these miscreants not only use datura, but also aconite, arsenic, opium, hemp (bhang), and oleander (kunere).

Rai Kanye Loll Dey Bahadur, when assistant Chemical Examiner to Government for Bengal, informed Dr. Chevers that thirty-six cases of aconite-poisoning came under the notice of the Chemical Examiner in the ten years, 1860 to 1869.

In the valuable memoir cited above, Dr. William Palmer has given the following very characteristic cases:—A police-constable at Brahmaharia, in Zillah Tipperah, was suddenly taken ill with burning pain in the epigastrium, foaming at the mouth, great restlessness, and inability to speak freely. His limbs soon became cold, and his pulse is reported to have been very weak. No mention was made in the report of the existence or non-existence of paralysis. The patient said somebody had administered poison with his *pan* (betel), when asked to account for his illness. He died in about four hours. On examining his body after death, a piece of root was found in the stomach, which was pronounced to be aconite on the spot. It was, however, forwarded to Calcutta, where it was further examined in the following manner. After being cut into small pieces, it was macerated in spirit for twenty-four hours. A few drops of this tincture were next administered to a kitten with the following results. After half an hour her pupils were slightly dilated, though they became smaller when she was held towards the light to be examined. At this time also she made violent efforts to vomit, but only small portions of the contents of the stomach were ejected. After this she became very restless, walked about the room, seeking means to escape; not finding any, however, she returned to her original corner, where she sat staring vacantly, with head erect and pupils more widely dilated. After a few minutes she moved again about the room, not showing any marked signs of loss of power over her limbs. When her tail or foot was pinched with a pair of forceps, the limb was suddenly drawn up, but when the skin of the back was similarly seized and forcibly twisted, she neither showed any sign of pain nor made any effort to move away; the feelers could even be pulled without exciting any appearance of displeasure. After the lapse of forty-five minutes she was more inclined to sit still or lie as if sleeping; when called, however, she always opened her eyes and looked, showing at the same time her dilated pupils. After an hour and a half all these symptoms began gradually to disappear. A little of the same tincture which was applied to the lip of the experimenter caused numbness, which continued more or less for twenty-four hours. The above signs and symptoms were considered sufficiently characteristic to confirm the suspicion that the root was aconite.

At Ranchee a man was suddenly seized with severe illness after drinking some rice-spirit, and died the same day. No symptoms appear to have been recorded, but there was a suspicion of poisoning, and the stomach, with its contents, was forwarded to Calcutta for examination. They were first examined for mineral poisons by Reinsch's and the magnesium tests. None being found, the contents were next submitted to a careful physical examination, but no known poisonous substance was detected by this means. The whole

stomach and contents were, therefore, subjected to a modification of Stas's process. The resulting extract was divided into two equal parts, one of which was injected into the stomach of a puppy at 10 a.m. His pupils became dilated in a few minutes. He also began to froth in the mouth and to lose power over his hind legs. He continued conscious, always looking up when called. His pupils were generally dilated, but close and continued observation revealed much variation in their size; they were often contracted to about their normal size for a moment or two, but never absolutely small. At one o'clock he was brought out of his corner and placed in the middle of the room; he then attempted to walk back, but walked with a tottering gait, his hind legs springing up again, in a state of great irritability, as soon as the feet touched the ground. When one hind foot was pinched with a pair of forceps, such violent reflex actions were produced that he immediately fell heavily to the ground towards the pinched side. His pupils were still dilated; no expression of pain was made when he was pinched severely on any part of his face or body. At 2 p.m. he lay apparently asleep, but raised his head and looked up the moment he was called. From this time he gradually recovered, and by the next morning was quite well. A little of the remaining portion was rubbed on the experimenter's lip at noon; by 3 p.m. the part had become so benumbed that the point of a needle was not felt when applied.

In the cases of aconite poisoning cited by Dr. Chevers, the state of the pupils varied considerably. From the collation of these cases, however, Dr. Chevers inferred that this poison only produces dilatation of the pupil in severe cases. In a less degree, the state of the pupil varies in cases of opium-poisoning. Dr. Taylor says that "in the later stage of opium-poisoning, and when progressing to a fatal termination, the pupils may be found dilated." Light is thrown upon this change from contraction to dilatation by a case observed by Dr. Chevers. A native was admitted to hospital, having shortly before been found insensible in his room, evidently from the effects of a very large dose of opium. On admission his pupils were very characteristically contracted. Ten minutes after his admission, Dr. Chevers found him stertorous and moribund. The pupils had evidently dilated a little as vitality failed. He died about twenty minutes later, while Dr. Chevers was examining the pupils. *Just at the instant of dissolution the pupils became largely dilated, as if moved by a spring, and remained in that condition.*

CERTAIN POINTS IN CONNEXION WITH THE CASE OF DR. LAMSON.

IN the course of the proceedings against Dr., or Mr., Lamson, a point has been raised which seems to us worthy of attention. It is this: his counsel asked that an analyst might, on the part of the prisoner, examine the viscera in which it was stated that poison had been found; and it is reported that his request was refused by the authorities to whom it was made. At first sight it would appear that this refusal was a little unfair to the prisoner. The traditions of English criminal law require that every facility shall be given to the prisoner to rebut the charges against him. The evidence of the analysts in a case like the present is of vital importance; for although it does not follow that because a certain person died from poison, therefore a certain other individual administered it, yet, if the proof that poison was the cause of death be shown to be defective, the whole case falls to the ground. Therefore it would seem reasonable that some one on the part of the prisoner should have the opportunity of detecting and pointing out any fallacy which might impair the validity of the result in the experiments

upon which so much depends. If we regard the medical evidence in such a case as this from the point of view which judges and juries take in civil actions for damages, the request of Dr. Lamson's counsel would be a just and proper one. Nevertheless, if the report be correct that it has been refused, we think the course taken a very right one, and we call attention to the matter, because we take it as showing that the authorities have put the medical evidence in its proper place—that they look at it as it should be looked at. The medical evidence, if it be that of men worthy of their profession, is the testimony of impartial experts, who have no bias one way or the other, but simply wish to answer with scientific accuracy the questions referred to them by the Crown. They are not against the accused, neither are they for him. The analysts employed in the present case are men whose skill and integrity no one who knows anything of them will for a moment doubt, and we may be sure that neither of them would make a statement involving such serious issues without having taken the most scrupulous care to guard against and eliminate every source of error. Had the precedent of civil actions been followed, it would have been only too easy to procure a score of men who would style themselves “analytical chemists,” would say (truthfully enough) that they could not find any poison, and would make such an amount and kind of dogmatic and conflicting statements as to the symptoms of, and tests for, poisons, that the most intelligent judge and jury would find it hard to discriminate fact from fancy. In civil cases, as in the present criminal one, technical questions should be referred to competent and impartial men, selected by some superior authority; and litigants ought not to be allowed to obscure truth and defeat the ends of justice by summoning partisan witnesses, whose zeal for their client, and not their knowledge, judgment, or integrity, is the reason of their being sent for.

The other point upon which we wish to comment is the alleged apathy of certain medical authorities when the fact was brought to their notice that Mr. Lamson was using titles which they alone had the power to confer, and had not conferred upon him. We learn from the Minutes of the General Medical Council that Mr. Lamson does not possess the M.D. of Paris, the L.R.C.P. of London, nor the Sanitary Science Certificate of Paris, all of which titles he had made use of; that neither the London College of Physicians nor the University of Cambridge have taken any action against Mr. Lamson for falsely using these titles; nor have the Royal Colleges of Physicians and of Surgeons of Edinburgh, though it was brought to their knowledge that their licentiate, Mr. Lamson, had been falsely pretending to possess the qualifications of other medical authorities. Now, we would say a word upon the position of the medical corporations in respect to offences of the kind. There is every probability that within a few years the separate licensing power which each of our universities, and colleges of physicians and surgeons, at present possesses will be taken from them, and transferred to a single uniform examining board, however this may be constituted. When there is such a board, which alone can give a title to practise, that title being sufficient and complete for all legal purposes, the only inducement to take also the titles conferred by the corporations will be the honour and credit which such titles give. A corporation which takes no precautions that its titles shall not be assumed by those who are unworthy of them, will soon make its certificates not worth having. In a word, the corporations must make their diplomas respected if, after they have ceased to be licences to practise, they are still to be held worth seeking. To let anyone who chooses falsely assume a title belonging to it, is not the way for any body to command respect.

We will go further, and say that the false assumption of any title by a member of a medical corporation should be a matter for the censure, and for such penalty as they have the power to enforce, of the body to which the impostor really belongs. They should not only protect their members from the competition of shams, but forbid them from themselves sailing under false colours. It should not be left to a local medical society to protect themselves and the public, who know nothing about the relative value of the various medical titles. If the medical corporations cannot set their own houses in order, no one else is likely to do it for them, and they will sink into decrepitude when once they have lost that power of licensing to practise which is their support at present.

THE WEEK.

TOPICS OF THE DAY.

SOME recent proceedings at Plumstead, in Kent, which have been recorded, show how slowly knowledge and wisdom spread even in these days of school boards and compulsory education. Neither enlightenment, nor common sense, nor regard for the well-being of their neighbours, have yet reformed the very peculiar and selfish sect called the “Peculiar People.” The sanitary inspector of the district having ascertained that the body of a child who had died of small-pox was lying at a house in Orchard-street, Plumstead, and could not be buried because the parents were unable to obtain a medical certificate, applied to the Woolwich magistrate for an order to remove it to the parish mortuary, with a view to holding the necessary inquiry into the cause of death. After some difficulty, caused by the parents refusing to allow the body to be taken away, it was eventually removed, and Mr. Carttar, the Coroner for Kent, investigated the case. The mother deposed that the deceased died of small-pox; she knew it was small-pox because his elder brother was taken with it about a month previously. Two other members of the family had also been attacked, but were now getting better. No medical assistance had been obtained, because they did not believe in it. Whilst the disease was at its height her husband and nephew had been out and about as usual. The Coroner inquired if she thought her peculiar creed authorised her to risk the infection of a street full of people; but we do not find a record of her reply. Dr. Alfred Sharpe said he had made a post-mortem examination of the body. The child had died of confluent small-pox. He could not say that medical attendance would have saved the boy's life, but it would certainly have increased the probability of his recovery. The jury, after protesting against being brought in contact with witnesses fresh from a house “reeking with infection,” returned a verdict of manslaughter against the father, John Morby, and he was accordingly committed for trial. The necessity for such a prosecution, which is sure to be called persecution, is unfortunate; and it is to be regretted that in this case the father could not have been punished under the sanitary laws, instead of by a criminal procedure which it will be very difficult to sustain.

At the first meeting in the present year of the City Commission of Sewers, a resolution was read from Aldgate Ward, stating that, in their opinion, the vacant land in Harrow-alley, now cleared for the erection of artisans' dwellings, should be dealt with without further delay. This was referred to the Improvement Committee for consideration, together with another resolution asking for some prompt measures of relief for the overcrowded state of Billingsgate Market. Dr. Sedgwick Saunders, the medical officer of health, in presenting his report, called attention to the fact

that in his capacity as public analyst he had examined 162 samples of milk, butter, water, pepper, sugar, etc., during the past year, and only two required the institution of a prosecution, both being in respect of milk. The public, he remarked, seemed to take very little interest in the working of the Adulteration Act, for, with a few exceptions, all the articles analysed had been obtained on his own instructions by the officers of the Commission.

The Woolwich Local Board of Health has unanimously passed the following resolution in reference to the present polluted condition of the River Thames:—"That a deputation be appointed to seek an interview with the Secretary of State for the Home Department respecting the pollution of the river Thames through the metropolitan sewage, by which the health of the inhabitants of the town of Woolwich, the men in the Government works, and the troops in the garrison, is endangered; also to direct attention to the intention on the part of the Metropolitan Board of Works to enlarge the reservoirs in this and the adjoining parishes, not with any view to the utilisation of the sewage, but to perpetuate the present dangerous and unsanitary system; that Sir Charles Mills, M.P., and Mr. Boord, M.P., be asked to introduce the deputation and support the appeal." A public meeting has also been held at Woolwich to support Colonel Hope's scheme for the disposal of the London sewage.

It is reported from France that the census taken on the 18th ult. in the department of the Seine shows an increase of population on that of 1876, when the last census was taken, of 237,100 persons. The total population of Paris is now 2,225,900, against 1,988,800 in 1876, and 1,851,792 in 1872. The increase is distributed over all the arrondissements except two, where the diminution has been the result of the demolition of a large number of houses for improvements. The increase has, of course, been greatest in the outlying industrial quarters, where there was, and still is, a large surface of ground available for new buildings.

The returns of the University of Edinburgh show that a large and regular increase has been going on for some years in the number of students enrolled in the Faculty of Medicine. This is stated to be to some extent encouraged by the high character and healthy competition of the teachers in the extra-academic school of medicine, whose lectures embrace every subject in the medical curriculum, and are allowed, by the judicious liberality of the University regulations, to be taken as a part of those required for graduation. The students have thus a free selection of teachers, and both the University professors and the University itself are no doubt benefited. At the same time, the numbers and successful development of the school are steadily kept up by the wide and increasing range of supply of students, to which India, the colonies, and even foreign countries, largely contribute. The southern portion of the University new buildings, in which the departments of anatomy, surgery, physiology, pathology, practice of physic, and midwifery, with their respective museums and practical laboratories, will be accommodated, is now nearly completed. Several of the class-rooms are already occupied, and the laboratories will be ready for practical work for the ensuing summer session.

The Westminster District Board of Works, through a special committee, recently gave instructions to their inspectors to report upon the issue of smoke and fumes from works in Lambeth, which, when the wind blows from certain points, injuriously affect Westminster and a considerable portion of the West-end of London. That report has been submitted to the Board, and referred to the Special Committee appointed by the parish of Lambeth to consider the question of the abatement of the smoke nuisance. Out

of twenty-three days during which the inspectors kept observation, there were thirteen on which either "black smoke" or "white vapour" is reported, varying, however, in degree—sometimes described as "very bad," with strong sulphurous smell, and on other occasions as "little light smoke." It is stated that the police authorities, as well as the District Board of Works, are about to take action with a view to the abatement of the Lambeth smoke nuisance; and it appears that, besides having a general interest in the question, the inhabitants of Westminster feel that it peculiarly affects the future of an important portion of their district, inasmuch as it is rumoured that the proposed extensive buildings on the site of Millbank Prison, when the latter is demolished, will not be carried out should the present smoke nuisance in Lambeth be continued.

The Committee of Management of the Devonshire Hospital, Buxton, have issued their report for the year 1881. From this it is to be gathered that, although no patients were received from January 1 to March 20, in consequence of the works then in progress for the extension of the Hospital, the number of patients admitted during the year was considerably in excess of the previous year. The report further states that the financial position of the Hospital has been less affected, not only during the past year, but during the last three years of more or less general and commercial depression, than might have been expected, and probably less than has been reported by similar institutions throughout the country. The receipts from annual subscriptions during the year have been slightly more; the receipts from casual subscriptions, which represent a very important part of the work of the Hospital, have been considerably greater. On the other hand, the amount of donations received at the Hospital has been much smaller than usual. The deficiency on the amounts received towards carrying out the extension works is about £3000; and this sum, it is hoped, will speedily be forthcoming from the friends and patrons of the charity. The additional 150 beds now added to the Hospital are allotted to the Governors of the Cotton Districts Convalescent Fund, who, in consideration of their munificent donation of £24,000, have a prior claim to recommend patients to them; and the expenses of such patients are to be wholly defrayed by the Governors of the Convalescent Fund.

At the East Sussex Quarter Sessions, recently held, a long discussion took place on the report of the County Lunatic Asylum Committee, which stated that the inmates now numbered 854, an increase of forty-one on the corresponding period of last year, and that there were only twenty-six vacant beds in the institution. A sub-committee had been appointed to consider the best means of meeting the continued increase in the number of lunatics, and, though they had not yet reported, there was a very general opinion that the only way out of the difficulty was to build another asylum. The suggestion has been put forward that Brighton should build an asylum for the borough, 280 of the patients at present in the county asylum belonging to that town.

It is announced that a meeting will be held early in February for the purpose of considering the proposal to introduce a general hospital ambulance system throughout the metropolis. The Duke of Cambridge, as President of the London Hospital, has kindly consented to preside, and it is hoped that most of the leading hospital representatives will be present. The ambulance waggon recently presented to the London Hospital by Mr. Crossman will be exhibited upon the occasion, and its advantages will be pointed out by Dr. Howard, of New York, who will also give a description of the ambulance system as at present in practice in New York.

At a meeting of the Senatus of Aberdeen University, held last week, a letter was read from Sir Erasmus Wilson, intimating his desire to found a Chair of Pathology, and to endow it with a sum of £10,000. It is almost needless to add that the offer was gratefully accepted.

ALLEGED EXPERIMENTING ON A HOSPITAL PATIENT.

In a clinical lecture published by one of our contemporaries the week before last, Mr. Jonathan Hutchinson told with much rhetorical skill the story of a cure of severe pemphigus by arsenic. He had the courtesy to say that the practitioner who recommended the patient for admission to the London Hospital might have himself undertaken the treatment with every prospect of success. He also stated, for the sake of emphasising the abrupt effects of using the drug, that he had allowed the patient to remain in the Hospital a few days before prescribing for him, the patient having previously endured the crop of bullæ on his skin for ten days at home. Upon this apparently slender provocation, the *Daily News* interposes with a letter (copied into the evening papers), and next day with a leading article, to point the moral of experiments upon hospital patients, and to drag through the dirt, for the space of a column and a bit, the name of a sound practitioner and honourable man. Reading between the lines of the article, one may easily discover the motive of it. There are a good many excellent men and women of abundant leisure, whose sensibility is apt to become over-acute and altogether impracticable from want of contact with business and affairs. They are sometimes permitted to write articles in the papers, and some of them can do that sort of thing very well. Verse would suit them on the whole better than prose, and they should at any rate avoid the use of proper names in small capitals, always excepting the names of dead heroes and mythological deities. Mr. Hutchinson can afford to take a purely scientific view of the hyperæsthesia of his well-meaning traducer, and perhaps no one would be more amused or puzzled at the whole incident, if he troubled himself to read it, than the fortunate patient who got cured so speedily and so thoroughly of a disease which even so recent and great an authority as the lately deceased Hebra thought to be always fatal in its severe forms.

THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

At the quarterly meeting of the Council of the Royal College of Surgeons, held on Thursday, the 12th inst., the signatures to the by-laws of Members elected to the fellowship were received. The reports were received from the several annual committees, and from the Committee on Further Examinations for the Membership and the Fellowship. The Museum Committee submitted a series of regulations defining the conditions of the admittance of women to the Museum; and these were adopted by the Council. It was also resolved, on the recommendation of the Committee, that the second part of the catalogue of the vertebrated animals, which includes a list of the mammalia, recent and extinct, in the Museum of the College, shall be printed. The fourth report of the Committee on Additional Examinations reported that the Committee had taken into consideration the resolution of the Council, of date December 9, 1880, viz.:—"That it be referred to the Committee to consider 'the curricula of professional examination for the Diplomas of Member and Fellow of the College, especially in reference to the inequalities existing in them as compared with the curricula of other institutions, and to report thereon'; and that, having examined the curricula of professional education of the other surgical institutions of the United Kingdom, they do not recommend that any alteration should be made in the curri-

cula of professional education for the diplomas of Member and Fellow as laid down in the existing regulations of the College. The Committee further reported that, in pursuance of the resolution of the Council of June 9 last, they had considered the following resolution of the General Medical Council of April 30, 1881, viz.:—"That it be recommended to the several licensing authorities under the Medical Act to consider whether they can separately or conjointly take steps to promote the establishment of a preliminary scientific examination, and to require of all candidates for their respective licences, that, after passing the preliminary examination in general education, and either before commencing the purely medical curriculum, or, at the latest, before the end of the first year thereof, they shall pass such a preliminary scientific examination as is proposed;" and they recommended that the following reply be sent to that resolution, viz.:—"That, in the opinion of the Council, it is desirable that candidates for the diplomas of Member and Fellow of the College should be required to pass a preliminary scientific examination, in addition to the preliminary examination in general education, provided such examination be passed by them before the commencement of the purely medical curriculum, so as to avoid any curtailment of the present too limited period of four years now required for professional study; and that it is not in the province of the College to take any steps, either separately or conjointly, in establishment of the proposed preliminary scientific examination." The report of the Committee was adopted by the Council. Five essays had been received for the Jacksonian Prize of the College. Mr. Spencer Wells was appointed to deliver the Hunterian Oration for 1883. Mr. F. G. Hallett was appointed Assistant-Secretary to the College.

PILOCARPINE IN DIPHTHERIA.

DR. W. LEWIN, of Friedrichsberg, contributes his experience of this drug in diphtheria to the *Berliner Klinische Wochenschrift*, Nr. 32. He was induced to try the treatment in consequence of Dr. Guttman's report of its virtues (an abstract of which appeared at the time in this journal). Dr. Lewin's experience is much less extensive than Dr. Guttman's. As far as it goes it does not seem to confirm Dr. Guttman's eulogies, for he considers that, far from being a *specific*, it is not even a constant or sure remedy in diphtheria. He gives a series of thirteen cases, in two of which it acted marvellously; in two others fairly well, but other drugs had also to be employed; while in the severe cases, "like all other previous remedies, the pilocarpin left us in the lurch." Dr. Lewin has never seen collapse follow its use, although he has prescribed it in good doses. He regards the drug as a useful addition to our list of remedies against diphtheria, but cannot give it any very high place among them.

THE "REUBEN HARVEY MEMORIAL" FUND.

THE committee appointed to raise this fund and to establish a memorial to the late Dr. Reuben J. Harvey met at the King and Queen's College of Physicians, Kildare-street, Dublin, on Monday afternoon, the 16th inst., Dr. Gordon in the chair. The honorary treasurer, Dr. G. F. Duffey, reported that subscriptions to the amount of £150 had been already received or promised. The following were appointed an executive sub-committee to issue a circular and to report to the general committee as to the most feasible manner of carrying out the views of the subscribers, namely:—Mr. George F. Fitzgerald, Fellow of Trinity College, Dublin; Dr. Charles E. Fitzgerald; Dr. E. H. Bennett; Dr. Robert McDonnell, F.R.S.; Dr. J. W. Moore; with the honorary

secretaries—Dr. E. P. Wright, Trinity College, Dublin, and Dr. C. J. Nixon, 2, Merrion-square, Dublin; and the honorary treasurers—Mr. Richard W. Boyle, J.P., 35, College-green, Dublin, and Dr. George F. Duffey, 30, Fitzwilliam-place, Dublin. Any of these gentlemen will be happy to receive subscriptions to the fund.

THE PARIS WEEKLY RETURN.

THE number of deaths for the first week of 1882, terminating January 5, was 1281 (725 males and 556 females), and among these there were from typhoid fever 25, small-pox 19, measles 11, scarlatina 5, pertussis 5, diphtheria and croup 68, dysentery 3, erysipelas 5, and puerperal infections 3. There were also 44 deaths from tubercular and acute meningitis, 195 from phthisis, 67 from acute bronchitis, 87 from pneumonia, 92 from infantile athrepsia (30 of the infants having been wholly or partially suckled), 125 from diseases of the cerebro-spinal apparatus, and 31 violent deaths (22 males and 11 females). The increase of 189 deaths upon those of the preceding week is chiefly due to the affections of the respiratory organs, although phthisis has not participated in this augmentation. There has also been an increase of small-pox from 9 to 19, and of diphtheria from 62 to 68. The births for the week amounted to 1220, viz., 639 males (467 legitimate and 172 illegitimate) and 581 females (417 legitimate and 164 illegitimate): 86 infants (46 males and 40 females) were born dead or died within twenty-four hours.

PATHOLOGICAL SOCIETY OF DUBLIN.

At the meeting of this Society held on Saturday, January 14, Dr. William Stokes, President, in the chair, Mr. Wheeler showed the right index-finger of a woman aged fifty, which was the seat of a melanotic sarcoma of two years' standing. The tumour was seven inches in circumference, four and a quarter inches in diameter. The finger was amputated through the metacarpophalangeal articulation. The new growth originated in the subcutaneous tissue. There was no glandular enlargement. On microscopical examination, numerous bloodvessels were seen, and many spindle and oval cells with marked pigmentation. Evidences of secondary fatty degeneration were visible in places. Brigade-Surgeon Jackson, C.B., showed a sacculated bladder, with an abscess in the recto-vesical fascia, from the body of a private in the Coldstream Guards, aged twenty-three years. The patient had suffered from gonorrhœal orchitis in July, 1880, and became the subject of chronic cystitis early in 1881. Owing to increasing retention of urine, Surgeon Barrow tapped the bladder per rectum on October 28, 1881, when a pint and a half of most foetid, dark-green, purulent urine escaped through the canula. Urethrotomy was performed on December 3, but the patient died on the 12th of that month. The walls of the bladder were found to be half an inch thick; its mucous surface was dark purple. To the right of its floor was a circumscribed opening into a well-defined sac in Tyrrell's fascia, from which a thin pus escaped into the bladder. The wall of the sac was three-sixteenths of an inch thick; its upper surface was covered by the peritoneum, to which it was firmly adherent. After a discussion, the specimen was referred to the Committee of Reference. Dr. Walter Smith presented a large dermoid cyst of the ovary from the body of a girl aged seventeen, the subject of an abdominal swelling of some months' standing, and who died of gradual exhaustion. On examination the tumour presented a multiplicity of tissues, all referable to the connective-tissue series. The outer wall of the cyst consisted of true skin, and the tumour contained numerous loculi, filled with various matters, including fat, cartilage, hair, and bone.

ANNUAL MEETING OF THE CLINICAL SOCIETY.

IN accordance with the rules of the Clinical Society, its annual meeting was held on Friday, the 13th; the President, Mr. Lister, in the chair. By a very awkward arrangement, the chief business of the evening was, so to speak, interpolated in the middle of a tedious discussion on myxœdema, with the result of protracting the ordinary meeting half an hour beyond the usual time. The business of the annual meeting should not be of so slight importance as to assume a mere matter of form; but on this occasion this appeared to be the case, for a new by-law had to be adopted, and apparently it was not even considered, in the first instance, worth while to do more than read it to the meeting. It appeared to us that it was never moved or seconded, but put in an altogether informal manner from the chair, so that it might be questioned how far it is binding on any of the members, present or future.

The report of the Council was read by Dr. F. Taylor, the Medical Secretary. This stated that there were 341 members, and that during the year a certain number of honorary members had been elected. The finances were in a satisfactory condition, there being £138 odd in hand, and £500 invested. In the *Transactions* there was, too, a very valuable report on hip-joint disease, which had cost much labour, but would be very useful. The Council had resolved on adopting a new rule, which would be in due course submitted to them.

Mr. Heath, the Treasurer, also read the balance-sheet, which had been audited and found correct. It was moved by Dr. Cholmeley, and seconded by Mr. Gant, that the report of the Council and the Treasurer's balance-sheet be received and adopted, which was unanimously agreed to.

The President then read the proposed new rule, which was to the effect that all papers read before the Society become its property; that they could not be withdrawn or published elsewhere without forfeiting their chance of publication in the *Transactions*.

This, so far as we could hear, was neither moved nor seconded, but was put from the chair and declared carried.

Dr. Bristowe next proposed, and Dr. S. Mackenzie seconded, a vote of thanks to the retiring Vice-Presidents and other officers, which was carried unanimously, and Dr. Althaus replied.

A special vote of thanks was then proposed to the retiring Secretary, Dr. F. Taylor, for his kindness and courtesy as well as for the time and labour he had expended on the interests of the Society during his term of office. This was done by Mr. Barker, and seconded by Dr. Whipham; and carried by acclamation.

On the examination of the ballot-box, the following gentlemen were declared duly elected as office-bearers for the ensuing year:—*President*: Joseph Lister, D.C.L., LL.D., F.R.S. *Vice-Presidents*: William Henry Broadbent, M.D.; Andrew Clark, M.D.; *Frederick William Pavy, M.D., F.R.S.; *John Croft; George Lawson; Thomas Smith. *Treasurer*: Christopher Heath. *Council*: Thomas Barlow, M.D.; John Cavafy, M.D.; James Frederick Goodhart, M.D.; William Richard Gowers, M.D.; *William Miller Ord, M.D.; *George Henry Savage, M.D.; Frederick Taylor, M.D.; Edmund Symes Thompson, M.D.; Alfred Wiltshire, M.D.; J. Burney Yeo, M.D.; *Rickman John Godlee, M.S.; Henry Greenway Howse, M.S.; F. Howard Marsh; Edward Nettleship; *Herbert William Page; *Robert William Parker; William F. Teevan; *William J. Walsham; Edwin T. Watkins, M.D.; William Spencer Watson. *Honorary Secretaries*: *Sidney Coupland, M.D.; J. Warrington Haward. (The gentlemen whose names are marked with an asterisk were not on the Council, or did not hold the same office, during the preceding year.)

EPIDEMIOLOGICAL SOCIETY.

At the meeting of this Society on the 4th inst., Dr. George Buchanan, F.R.C.P., President, in the chair, Dr. Joseph Ewart, F.R.C.P., of Brighton, read a paper (which will be found elsewhere in our pages), entitled, "Is the Climate of Indian Hill-Sanitaria Beneficial in Scrofula, Tuberculosis, and Phthisis?" The President, Sir Joseph Fayrer, Dr. Norman Chevers, Dr. Douglas Powell, Dr. Makuna, and others, took part in the discussion which followed.

WHAT IS BRIGHT'S DISEASE?

It is, we believe, currently reported and generally believed that an old fogey of the name of Bright, who was connected with Guy's Hospital some years ago, asserted that he had seen a number of patients all having dropsy, with albumen in their urine, whilst after death their kidneys were commonly found to be diseased. These symptoms and conditions he grouped together, and to them certain individuals still more silly than himself gave the name of "Bright's disease." But it is evident that this Dr. Bright had no gift of imagination, for he actually worked long and hard before he came to the trifling conclusions above referred to; beyond all, he could never invent his facts, nor had he the gift of twisting them about so as to prove anything. In short, he was what Americans would call a "very or'nary cuss" after all. But see what has been done since his day! Why, his disease, though it is by the weak-minded still supposed to kill a large proportion of our fellow-mortals, has actually been improved off the face of the earth! First it was found that the same condition of kidney would sometimes give rise to dropsy, and sometimes not; especially this was noted—that in the same individual dropsy might exist at one time, and not at another: so the dropsy was dropped as one of the necessary symptoms. Then it was found that albumen was not always plentiful in the urine; yea, that it was sometimes absent altogether: so the albuminuria has been got rid of as an essential feature in Bright's disease. Only one thing more remained, and that was the kidney disease, which has now apparently gone the way of all the rest; so that we now have the pleasure of contemplating a disease which no longer possesses any one of the characters by which it was originally distinguished. These are great achievements, doubtless; but destruction comes naturally to mankind. Look at the new theories constructed! Some of the wicked ones, we fear, would, with regard to these, say that the zeal which comes not of knowledge might be better employed even in coining words than in building hypothesis on hypothesis—a kind of tower which has little chance of reaching to the heavens, or, indeed, attaining to any greater height than other fungoid growths similar to itself.

THE ST. JOHN AMBULANCE ASSOCIATION.

The St. John Ambulance Association convened a meeting on Monday afternoon, the 16th inst., composed of a few representatives from the different London hospitals, the medical staff of the Association, divisional police surgeons, and others, to consider a system of placing ambulance stations in telegraphic communication with the hospitals of the metropolis, and the best means of wheeled transport. A good deal of reference was made by the Chairman, Sir E. Lechmere, and others, to the system which is finding favour in America, viz., one which involves the maintenance at the various hospitals of a complete ambulance staff, who are ready to start off, the whole *posse comitatus* complete—attendants, dressers, and all—to the relief of an accident in their neighbourhood, of which they are informed by telegraph. It was very wisely pointed out by Dr. Sieveking

that such a method as this is not only beyond the limits of what is fairly to be expected from the staff of a hospital in this country, but that (even supposing it to be desirable) no hospital committee could, under present circumstances, be expected to sanction the very considerable expense that it would be certain to entail. The hospital authorities always hold themselves in readiness to relieve cases of accident or sickness that are brought to them, but the function of transportation rests with the police and, to a certain extent, with private practitioners and such philanthropic people as those who take so lively an interest in the St. John Ambulance Association. If this be granted, the deduction seems obvious, as was pointed out by other speakers, that nothing, or next to nothing, would be gained by putting the hospitals into electrical communication with the police-stations. No harm of course could result, and if the money is forthcoming and there is no better use to put it to, by all means let it be done; it may possibly, in rare cases of extensive accidents, enable the hospital staff to be in greater readiness for the reception of the wounded; but beyond this nothing is to be looked for, and we hope the Association will not flatter themselves that anything very important will be gained by it. It is obviously wise to obtain leave from the police authorities to allow their wires to be used for ambulance purposes, and to try to secure a perfect electrical intercommunication between the police-stations, even, and perhaps especially, in outlying districts. In taking up the question of wheel-ambulance carriages, the Association are only continuing the good work in which they have already made very considerable progress; it is, we venture to think, perhaps the most practically useful of their undertakings, and we wish them every success in it. Notice was given that a prize would be offered for the best wheel-ambulance carriage, and that the competitors could exhibit their models at a meeting which is likely to be held before long, under the presidency of the Duke of Cambridge, at the United Service Association to discuss the whole subject. This meeting had been summoned before the St. John Association moved in the matter, but it was the unanimous feeling of those present that it was desirable for the two bodies to act cordially together.

THE RECENT TRIAL FOR FORGING A DIPLOMA.

At the recent Reading Assizes, Arthur Augustus Sadgrove was prosecuted at the instance of the Faculty of Physicians and Surgeons of Glasgow for forging a medical diploma; he was also indicted at the same time for attempting to obtain various sums of money by false pretences. The prisoner had been living for some time near Didcot, where he put M.D. on his door, and signed death-certificates as physician and surgeon. In March, 1880, he obtained an appointment as medical man to some new railway works at Didcot, and signed all necessary certificates as doctor. Shortly after this appointment a summons was taken out against him by the Royal College of Physicians of London, for falsely representing himself as a licentiate of that body, and he was found guilty and fined £5. Upon this the manager of the railway works, Mr. Scott, applied to Mr. Sadgrove for some evidence of his qualifications, and was shown a document stated to be a diploma from the Faculty of Physicians and Surgeons of Glasgow. This document the accused declined to produce at the trial, and in giving secondary evidence of its contents, Mr. Scott was only able to remember the heading—the word "Faculties," and the prisoner's name in English, with the fact that there was a large seal in the corner. Mr. Scott not being entirely satisfied, expressed to the prisoner his intention of communicating with Glasgow, and eventually he received a letter

purporting to be an answer from Mr. Duncan, the Secretary to the Faculty, stating that Mr. Sadgrove was properly qualified as a licentiate. Mr. Sadgrove then sought to obtain a medical appointment in a neighbouring village; and again produced a document, which he stated was his qualification. The vicar of the parish, to whom it was shown, was, however, unable to say whether the text was in Latin or English; but he was certain that the prisoner explained the initials after his name as being Licentiate of the Faculty of Physicians and Surgeons of Glasgow, and that he said the document enabled him to practise anywhere. Communications were once more exchanged with Glasgow, but this time without the prisoner's knowledge, when it turned out that Mr. Scott's letter to the Faculty had never been received, and that what purported to be an answer to it had not been written by the Secretary. It was proved that the prisoner had no claim to style himself licentiate, although he had twice appeared before the Board of Examiners and failed to pass upon each occasion; and it was mentioned, as a curious coincidence, that the day after his first examination a diploma which had been made out for a successful candidate was missed, and had never been recovered. Upon the discovery of these facts a warrant was applied for, but before it was executed the prisoner had gone to Glasgow to present himself for a third time before the Board of Examiners. On being accused by Mr. Duncan with showing a false diploma to Mr. Scott, he maintained that it was not a diploma, but a Latin certificate, and when given into custody he gave various other accounts of this document. The prosecution accordingly sought to obtain his conviction for uttering a diploma knowing it to be forged, and attempting upon the strength of it, and by other false pretences, to procure money in the shape of salary as a duly qualified physician and surgeon, whereas he was in fact no more than a licentiate of the Society of Apothecaries in Ireland. Mr. Justice North, in summing up, declared that the evidence was not sufficient to sustain the charge of attempting to obtain money by false pretences. As to the charge of forgery, the jury would have to determine whether they were satisfied that the document shown by the prisoner to Mr. Scott purported to be a diploma; that the prisoner knew it was not a diploma when he said that it was; and if it was not a diploma, and the prisoner knew that it was not, whether it was produced by him with intent to defraud. The jury, after a short deliberation, found a verdict of "Not guilty." The learned judge said he was glad the jury had seen their way to acquit the prisoner, and he hoped the peril in which he had stood would be a warning to him for the future.

ST. THOMAS'S HOSPITAL.

A SPECIAL General Court of Governors of St. Thomas's Hospital was held on Wednesday, the 18th inst., for the purpose of electing His Royal Highness the Duke of Connaught as President of the Hospital. There was a large attendance of governors, to grace the occasion, for the election of the Duke of Connaught was, of course, a settled matter beforehand; but unfortunately the ceremony was shorn of much of its interest, as a telegram was received from His Royal Highness, expressing his deep regret at unexpectedly finding himself unable to fulfil his engagement. His Royal Highness was, in accordance with the laws of the Hospital, first elected as a governor; after which his election as President was formally proposed, and of course unanimously carried. We entirely agree with the remark made by Mr. Wainwright, in moving the election of the Duke of Connaught, namely, that the Hospital needs the services of a real President; and we congratulate the charity on the

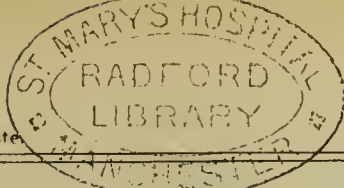
Duke of Connaught's acceptance of that post, for all the members of our Royal Family are distinguished by the fidelity and fulness with which they attend to the duties of any office they accept.

"ALKAPTON" IN URINE.

At the last meeting of the Medical Society of the King and Queen's College of Physicians in Ireland, Dr. George C. Armstrong exhibited a specimen of the urine of a little girl, apparently in perfect health, whose mother he had attended three years ago in the worst puerperal convulsions he ever saw. The mother remarked that the child's urine, although perfect normal in appearance when first passed, on being allowed to cool assumed a deep colour, and stained the child's linen. He sent some of the urine to Professor Tichborne, who had made the following analysis:—"The specific gravity of this urine at 60° Fahr. was 1025. Albumen was absent. It was acid to test-paper, and on standing gave a slight deposit, consisting of urate of ammonia and a little mucus. The urea was scanty, and not sufficient to account for the high gravity—it was 1.2 per cent., or 5.25 grains per fluid ounce. This urine presented a great peculiarity; it contained a substance which is only met with occasionally, and which has been termed *alkapton*. Bödeker met with a case, and Lionel Beale mentions a case in which Dr. Johnson found it in the urine of an infant. This body stains the linen, particularly when the urine becomes alkaline. It behaves like sugar, and reduces copper, and probably it may be viewed in a somewhat similar light pathologically. Estimated as a sugar, it would give about eight grains to the fluid ounce. The urine was examined for the bile reactions, but gave none." Dr. Armstrong said he put some of the urine into small bottles, and, having hermetically sealed them, left one exposed to light and air, and put the other into a dark place. The latter specimen, after six hours, was not changed in any way. The Vice-President (Dr. J. W. Moore) said that, although this urine after a manner "behaved like sugar," as Dr. Tichborne's analysis stated, yet the reaction was very different. Under the influence of liquor potassæ, without the aid of heat, it struck a dark brown colour. Urine containing grape-sugar, according to his experience, did not change when liquor potassæ was added to it, except under the influence of heat. Again, with sulphate of copper the reaction of the urine was very incomplete—not at all so complete as that given by grape-sugar. The results of the microscopic examination of the deposit of the urine were completely negative; the deposit he experimented with consisted of a little mucus, epithelium, and a few small oil globules, the presence of which may have been accidental. Dr. Walter Smith tested, before the Society, samples kindly supplied to him, and pointed out that the results confirmed the statements originally made by Bödeker in reference to so-called "*alkapton*" in urine. These are—

1. Strong alkalies darken the urine without the application of heat, and the colouration proceeds from the surface of the liquid downwards, i.e., oxidation co-operates with the alkali.
2. Reduction, at least partially, of the copper test.
3. Non-fermentation with yeast.

The term *alkapton* is, it is presumed, derived from *alkali*, ἀπρω (fasten or bind), from its relation to alkalies; but the word conveys no real information, and was given at a time (1861) when the physiological chemistry of the urine was very imperfectly understood. From various considerations Dr. Smith thought it probable the peculiar substance or substances in the urine exhibited belonged to the "aromatic series" of chemical compounds, the physiological relations of which group have been investigated with remarkable success during the past five years. Pending further investigation it would be premature to express a definite opinion on the subject in question.



SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

A QUARTERLY Court of the Directors of the above Society was held on Wednesday, January 11, at 5 p.m. The chair was taken by the President, Sir George Burrows, Bart., Five new members were elected, and the deaths of three reported. The applications for grants from fifty-eight widows and nine orphans were approved, and the sum of £1212 10s. was voted to be distributed according to the merits of the respective cases. Two widows, recipients of grants, were announced as dead; there were no fresh applications for grants. The Christmas present of £5 additional to each widow, and £2 to each orphan, amounted to £320, and had been paid in December last. The working expenses of the quarter were £65 9s. 7d.

POISONING BY IODOFORM.

PROF. KÖNIG, of Göttingen, publishes the following circular in the *Centralblatt für Chirurgie* for December 31:—In face of the increasing employment of iodoform it is of very great importance that an answer, based upon an extensive reference to cases, should be given to the question, whether, and under what circumstances, this remedy has in an indubitable manner been the cause of death in persons treated by it; and also the further question, whether the observation has been made that during the use of this substance a peculiar form of mental alienation has been produced. It is obviously desirable that short histories of the cases in question should be supplied. Prof. König promises that he will make the most discreet use of any communications that may be forwarded to him in answer to these highly important queries, and will publish the results of his examination of them in the *Centralblatt*.

A CONVALESCENT HOME IN CONNEXION WITH THE HOSPITAL SATURDAY FUND.

A SPECIAL meeting of the Board of Delegates of the Hospital Saturday Fund was held on the afternoon of the 14th inst. at the Royal London Ophthalmic Hospital, Moorfields, for the discussion of a proposal to establish a convalescent home exclusively for working-men. Mr. Dickinson moved a resolution to the effect that the Board, having considered the report of a committee appointed to inquire into the subject, felt that a convalescent home for working-men was needed, and that steps should be taken to raise the necessary funds. In discussing this resolution, doubts were expressed by some members as to the possibility of carrying out the project successfully, while others were fearful lest it should clash with the working of the Hospital Saturday Fund. Mr. Radley said he believed that if the proposed convalescent home were to be an institution managed by working-men for the benefit of working-men, and the co-operation of organised societies like the Odd Fellows and Foresters were sought, a regular income of £300 or £400 a year, or more, might be secured. Of course such support would be given on condition that a certain number of beds were placed at the disposal of each court contributing. It was suggested by Mr. Petty that a day should be set apart for the collection of funds specially intended for the Convalescent Home, and that it should be at a different time of the year from that fixed for collections for the Hospital Saturday Fund. Mr. Howell thought it better not to connect the words "Hospital Saturday Fund" with the name of the institution proposed. Mr. Frewer, the Secretary, said it was calculated that, by establishing this convalescent home, the fund would have, for every ten guineas contributed, seven beds at their disposal instead of four, the largest number they could now get from any convalescent home in return for their annual

award. Ultimately the resolution moved by Mr. Dickinson was unanimously adopted. The subject is to be further discussed at a public meeting to be held at an early date under the presidency of Mr. Samuel Morley, M.P., in Exeter Hall.

RECEPTIVITY IN ACUTE VIRULENT DISEASES.

IN a recent discussion on epizootic peripneumonia at the Paris Academy of Medicine, M. Hervieux made some interesting observations on the varying receptivity of individuals for the acute infectious disorders. This varying receptivity is just as manifest in the bovine as in the human species. Thus, M. Bouley stated that of one hundred animals shut up in an infected stable, fifty were violently attacked, thirty slightly, and twenty escaped. This is again manifest among students in the dissecting-room, where the air must be charged with the subtle elements of infection to a considerable extent—floating about "like the pollen grains of flowers." Some few students seem never to suffer the least inconvenience; some, however, will get typhoid symptoms; others, diarrhoea or general malaise; while others, without being ill, will betray that they have been exposed to these exhalations by emission of flatus charged with the characteristic odour of the dissecting or post-mortem rooms, or by a foetidity of breath, or by a disagreeable taste in the mouth. But it was chiefly to the Maternity Hospital with which he was connected that he wished to apply his remarks. He had frequently observed that puerperal septicæmia manifested itself with very unequal degrees of severity. Thus there were slight cases, severe cases, and a few exceedingly acute cases. The poison was nevertheless the same: the differences depended, therefore, on the individual. In one the morbid process appeared as a peritonitis, either local or generalised; in another as a uterine phlebitis or a phlegmon of the broad ligament; in another as a metritis. Of those attacked some died, others recovered. On examining into these facts a little more closely it was easy to observe that few of the women really escaped altogether. For, without presenting any serious lesion, some would have diarrhoea, others profuse sweats; some foetid lochia, others vulvar excoriations. In some the infection might show itself in a premature confinement, while in another set the purulent infection might attack the foetus and betray itself in a pathological condition, which he (M. Hervieux) had described under the term "foetal (infantile) septicæmia." Side by side with this varying receptivity, the organism possessed another aptitude, that of being able to neutralise the virulent principle: this power varied in a like degree with the receptivity. But when the eliminating power exceeded the power of receptivity, the organism was able, more or less easily, even when attacked, to rid itself of the pathogenic material, and to remain unhurt. The author resumed his arguments in the following propositions:—1. In any medium saturated with an infectious material, the subjects living in this medium all suffer impregnation from it, according to the degree of their receptivity, which betrays itself by a morbid condition as variable in its intensity as in its manifestation. 2. The aptitude to contract infectious disease may be counterbalanced by the eliminative power of the organism—that is, by an aptitude, more or less developed, which an individual possesses, to expel the morbigenous principle in some way or other. 3. These various means have been found (either by experimentation or clinical observation) to lie either in the intestinal, respiratory, cutaneous, or urinary tract; and they are all and each so many indications, which the practitioner should make use of in deciding on the treatment of any given case.

FROM ABROAD.

ARTIFICIAL FEEDING IN PHTHISIS.

IN the *Gazette des Hopitaux*, 1881, No. 136, Dr. Brochin gives an account of some recent trials of feeding phthisical patients by means of modifications of the stomach-pump. The procedure, he observes, has been heretofore well-nigh confined to the feeding of refractory lunatics. At the meeting of the Paris Hospital Medical Society on October 28, Dr. Debove, of the Bicêtre, read a paper on the employment of the œsophageal tube as a means of feeding phthisical patients affected with complete loss of appetite. A young subject of phthisis, who was unable to bear any kind of food whatever, not even milk, on being submitted to what he somewhat erroneously calls "forced alimentation," by means of an œsophageal tube which he had invented, found herself able to take first a litre of milk, and afterwards both meat and eggs, so that she gradually reached the point of being able to tolerate two litres of milk, 200 grammes of meat, and ten eggs; and, thanks to this regimen, recovered her appetite and increased in weight, while the chest symptoms amended. Encouraged by these results, he has employed the same means in various other cases, some of which he has related in another paper (published in full in the *Union Médicale*, November 22 and 24) read to the Hospital Medical Society, the appetite and weight returning and the symptoms amending in these as in the first case. In the meantime Dr. Dujardin-Beaumetz had been putting the plan into effect at the St. Antoine Hospital, employing, however, the Faucher gum-elastic tube, one metre and a half in length, and at least one centimetre in diameter, and surmounted by a glass funnel capable of holding a litre. For facilitating the passage of the tube he employs neither greasy bodies, glycerine, nor vaseline, but merely wets it with tepid water. It is the patient himself, indeed, who passes the tube into the pharynx, and then literally swallows it by a true movement of deglutition, which scarcely needs the aid of a trifling impulsion imparted to the tube by his two hands holding it. This combined impulsion and deglutition are arrested when the slight circular projection which denotes the division of a third of the length of the tube reaches the level of the mouth. When the tube has entered the stomach, M. Beaumetz first washes the stomach out with a solution of sulphate of soda (six grammes to the litre), and then introduces by the syphon the alimentary mixture in somewhat smaller quantities than are given by M. Debove. Thus he gives 150 grammes of raw meat, four eggs (yelps and whites), and one litre of milk. The mixture, indeed, may vary according to circumstances, and common salt may be added, not as a condiment, but as a medicinal agent. Cod-liver oil also may be introduced, and in quantities much larger than when given by the mouth—from six to eight spoonfuls (100 to 200 grammes) at a time, for example. Some spoonfuls of the peptones may also be given. When there is no diarrhœa present, the cod-liver oil and the peptones may be first introduced, then the mixture of raw meat, eggs, and a portion of the milk, the remainder of the milk washing out the tube before it is withdrawn. When diarrhœa is present, the peptones and cod-liver oil are suppressed, and more or less bismuth (often a considerable quantity) is substituted. This mode of alimentation is practised only once in the day—in the morning. Referring to three women upon whom he had witnessed the trial of this procedure, Dr. Brochin states that they had all ceased eating, and vomited after every paroxysm of cough, their emaciation being always on the increase. The injection of food stopped the vomiting, an increase of appetite and weight took place, the strength returned, while fever and sweating were sensibly diminished. In a fourth patient, who had preserved her appetite, notwithstanding extensive pulmonary lesions, and who had suffered from diarrhœa for more than six months, the appetite still continued good, the diarrhœa was somewhat diminished, but there was still loss of weight and a persistence of fever. On witnessing the feeding of patients by this means, one cannot avoid being struck with the wonderful facility with which they introduce the tube themselves, and swallow it—for that is the word to use—

without the slightest resistance or apprehension. So, also, is their tolerance of relatively large quantities of food remarkable, only a slight regurgitation taking place in one patient out of six; and these very persons only tolerating with difficulty, or not at all, far slighter quantities when taken by the mouth.

Dr. Beaumetz, speaking of these and other cases, remarks (*Gazette des Hop.*, No. 137):—"The results which I have observed are identical with those obtained by Dr. Debove. Never yet has one of these patients vomited aliments thus absorbed, although all of them were before dyspeptic, and vomited everything on making the slightest effort. The increase of weight has been in several ninety grammes, but then they remained in a stationary condition; but, at all events, they gained by not continuing to lose weight. Strength returned, and these patients got up, walked, and felt themselves reviving. As to the pulmonary lesions, they presented no modification whatever. The fever was somewhat diminished in several of them. It is the first time that I have ever observed the subjects of phthisis thus amend. There are certain cases in which this method is formally contraindicated, or is at least useless; for example, when constant fever is present in those cases of phthisis so well designated by Prof. Peter as intractable. In fact, this method will be always only exceptional; but it renders great service to those phthisical persons who cannot eat, but who vomit and have absolute anorexia. Phthisis entailing a true loss of the powers of the economy, it is rendering great service to its subjects to be able to sustain them by a method which allows of their nutrition taking place."

HYPODERMIC INJECTIONS.

In a communication addressed to the *New York Med. Record*, November 26, Dr. Ainsworth, Assistant-Surgeon U.S.A., states that having made great use of hypodermic injections, he is desirous of mentioning some of the results of his experience. With regard to *morphia*, he says that the following is the formula of a perfectly stable preparation which never shows signs of change, or of the growth of fungi, after keeping even for years; and never gives rise to inflammation, or even to irritation, when administered as to be described:—℞. morph. sulph. gr. xcvj., aq. destill. ebull. ʒiij., acid. sulph. dil. ℥viiij.; misce et adde acid. carbol gr. xx., glycerin. pur. ʒj.; cola per chartam. Of this twenty minims contain one grain, and the only objection to this solution is that it might be confounded with Magendie's somewhat weaker solution; but this might be obviated by diluting the one to the strength of the other. A solution also that will keep well at least for months is made by adding carbolic acid to Magendie's solution. Dr. Ainsworth, however, in the exigencies of military practice in remote districts, has often been compelled to use old solutions full of vegetable growths; and he attributes the fact of their not having produced cellulitis or abscess to his method of administering the injection. Taking good care not to allow any of the solution to escape into the subcutaneous cellular tissue, the needle of the charged syringe is plunged *deeply* into the substance of a muscle, the piston gently pressed home, and the needle withdrawn. The thick muscles of the thigh, the gluteal region, or the back, may be made the site of the injection; but owing to its accessibility, the deltoid is in general to be preferred. The subcutaneous cellular tissue is very easily inflamed in certain conditions of the system, and Dr. Ainsworth believes that with whatever precaution the operation be performed in the ordinary way, an abscess is sure to follow. On the other hand, muscles are slow to inflame and suppurate, and a few minims of solution can be readily and rapidly forced into their substance, with but little pain, when a needle of sufficient length is used and the skin is kept tight over the site of the puncture.

Next to *morphia*, Dr. Ainsworth has made most frequent use of *ergot*, according to this formula:—Bonjean's ergotin gr. xlviij., rose-water and glycerine āā ʒj. Ergotin was first recommended by Dr. Jamieson for the relief of after-pains, but Dr. Ainsworth has found its chief utility to lie in the prevention of uterine hæmorrhage. It is his practice, in every case of childbirth in which no contraindication exists, to inject from five to twenty minims deep into the substance of the gluteal muscle just as the head of the child escapes from the vulva, relying upon this measure, together with expression of the placenta by Credé's method and washing

out the uterine cavity with very hot carbolised water in every case immediately after the delivery of the placenta, to secure firm, *unintermitting* uterine contraction—a guarantee against hæmorrhage, possibly against after-pains, and probably against septic infection. Towards this last object, the vagina is also during the lying-in very frequently irrigated with warm carbolised water until the lochial discharges cease. The chief advantage of the hypodermic use of ergot is that its action is much more prompt, certain, and continuous, and that it can be given at a time when the termination of the labour can be definitively foreseen—i.e., after the escape of the head,—and thus produce its full effect when most needed. Dr. Ainsworth states that he has thus administered ergot in a large number of cases with the happiest effect. The formula above named was first published by Mr. Grose in the *Lancet* for 1877, and keeps well for a long time, which a watery solution will not do.

Believing that there are many practitioners who are not aware of the very great value of the hypodermic employment of *whisky* or *brandy* in cases of impending death from collapse (especially when aided in its action by the simultaneous application to the epigastrium of a very hot spoon or even of a live coal), Dr. Ainsworth is desirous of recording his experience in the matter. On account of the large quantity (two or three drachms to an ounce or more) required to be used, the injection must necessarily be made into the loose subcutaneous cellular tissue, and abscesses must sometimes be expected to follow. In such desperate cases, however, if the patient live until an abscess has had time to form, he is probably out of danger. From among a great number of such injections, Dr. Ainsworth can recall only two cases in which such abscesses did form, and these were both in broken-down persons.

HOT WATER IN DISEASES OF THE EYE.

Dr. Connor, of Detroit, in a paper in the October number of the *American Journal of the Med. Sciences*, states that, encouraged by the great utility of hot water in various surgical operations, and especially in those on the uterus, he was led to employ it in affections of the eye, and that three years' trial of it in these has been followed by very satisfactory results. "For three years," he says, "our experience in the use of hot water locally applied to the eye in inflammatory affections of its various structures, has constantly, with increasing force, demonstrated to us that, as an agent to contract over-distended minute bloodvessels, and to give them tone without producing any ill effects, hot water is the remedy in all cases in which it can be tolerated or employed. At first we were very cautious in its use, but increasing observation gave us increased confidence. At present we rely on its uniform action more completely than upon any other one therapeutic agent that we employ."

To produce these results, however, the employment of the agent must be systematic. 1. The water must be as hot as it can be comfortably borne with the hand; but it is a curious fact that the eye will habitually bear with comfort water at a temperature that is very uncomfortable to the nose, face and hand, when applying it. 2. It should be placed in a large vessel, before the patient, on a chair or other support, to enable the body and head to be bent so as to allow the easy drenching of the eye by water thrown against it with the whole hand. Neither the hand, nor the fingers, nor cloths, nor sponges should touch the eye—nothing touching it, in fact, but the mass of water thrown by the hand with force sufficient to come into firm contact with the eye. 3. The amount of water should be such as to maintain the temperature tolerably uniform during the douching. Two quarts are generally sufficient. 4. The length of time for the application varies with the nature of the case. If mere superficial irritation has to be subdued, a couple of minutes three times a day may suffice; while in deeper-seated inflammations, or where these are more chronic, the water may be required during five minutes every hour or half-hour. The guide is found in the effects produced on the vascularity of the tissues, for if this can be reduced by short and infrequent applications these should suffice. "To one who has not seen the effects of hot water employed in the manner suggested there will no doubt be a degree of scepticism concerning the results alluded to. But this will disappear as soon as the remedy is intelligently used according to directions. Of course, it must not be expected that this remedy

will alone cure all eye-troubles. We have distinctly stated that only certain definite changes will be produced by it, all other changes requiring other remedies. While the remedy is a simple one and readily available almost everywhere, I know of none that requires more good sense and more care in its use than the one under consideration."

The following are the conclusions Dr. Connor arrives at:

—1. Hot water locally applied has the same power of controlling inflammatory processes in and about the eye as in and about the uterus or any other portion of the body. 2. It has been shown, by the late Dr. Pitcher and others, that hot water has the power to contract bloodvessels so as to stop hæmorrhage, and to bring about a more normal state of the local circulation. 3. It is clear that hot water materially limits acute and chronic inflammatory processes, stopping or preventing septic poisoning and suppuration by its power to destroy or to hold in check the superabundance of white or red blood-corpuscles and other protoplasmic elements, so numerous at every spot of inflammation or other disturbance by local malnutrition. 4. To accomplish these ends, hot water is an invaluable adjuvant to our means for treating all sorts of inflammations of the eye or its appendages. 5. It should be applied systematically, as already stated; and at no time should anything but the hot water come into contact with the eye. 6. The difficulties in carrying out the treatment are the amount of time and care called for by it. The surgeon who prescribes it must carefully watch that it is carried out exactly as ordered. In most cases he will be materially assisted by the sense of relief from pain and discomfort so generally felt by such as faithfully follow directions. 7. As regards catching cold, I generally order that the last drenching be taken half an hour before leaving the house by all patients not confined to it. 8. Used in the manner indicated, hot water is an invaluable remedy in the treatment of diseases of the eye. It will accomplish certain indications of treatment more certainly, more safely, more quickly, and more pleasantly than any other single remedy with which we are acquainted.

POPULATION OF PARIS.—The *Progrès Médicale* says that according to the returns of the last quinquennial census, the total population of Paris, which was 1,988,806 in 1876, was 2,225,910 in 1881, or an increase of 237,140 inhabitants. The department of the Seine comprises 396,961 inhabitants more than in 1876, the population in 1881 being 2,747,810.

CONTUSION OF THE TESTICLE, AND ITS CONSEQUENCES.

—Profs. Monod and Terrillon terminate a paper having the above title, with these conclusions (*Archives Générales*, December 7):—1. Contusion is often followed by temporary pain, unaccompanied by local disorders or appreciable general reaction. 2. When it is more violent it induces in the parenchyma incontestable material lesions which give rise to a more or less inflammatory reaction, usually followed by atrophy of the organ, or more rarely by suppuration. 3. We may say that traumatic orchitis from contusion is generally an *atrophic orchitis*, giving an unfavourable prognosis as regards the function of the organ. Of this there may be three degrees—(1) simple hæmorrhages into the cellular tissue; (2) hæmorrhagic centres corresponding to the rupture of the seminiferous tubes; and (3) rupture of the tunica albuginea, with issue of the tubes into the tunica vaginalis, that is, a crushing of the testis. 4. Atrophy is especially frequent in the adolescent, while suppuration is chiefly observed in old persons and in the predisposed. 5. The epididymis may be attacked at the same time as the testis, but has less tendency to atrophy. 6. The peripheric lesions, whether seated in the vaginalis or in the peri-epididymary cellular tissue, often mask the primary affection, and are frequently a cause of error—giving rise to the belief of disorders which either do not exist, or lead to the misunderstanding of the case. 7. The frequency of orchitis from contusion has been much exaggerated, it being often confounded with urethral orchitis, the patient referring to a blow the pain which announces the commencement of the disease. A careful examination of the urethra can alone avoid error. 8. Some diathetic orchites are wrongfully regarded as traumatic. Injuries may, however, in these cases act as the determining cause; for it must be admitted that a contusion may give rise to a tubercular or syphilitic affection in a person the subject of such diatheses, or may hasten the evolution of latent tubercle.

REVIEWS.

Rheumatism: its Nature, its Pathology, and its Successful Treatment. By T. J. MACLAGAN, M.D. London: Pickering and Co. Pp. 333.

A book written expressly for the purpose of supporting a theory which its author has already persuaded himself is true, can never be altogether satisfactory. Insensibly the writer tends to view facts from that side which will best suit his views, whilst there must of necessity be wanting that fair and open way of taking everything into consideration which is the highest outcome of the scientific spirit. What we need in medicine is the seeking after truth for its own sake, and not merely the buttressing of preconceived notions, still less the wresting of facts so as to support a construction which they will not bear. A book, written in support of any theory, however plausible, may be clever exceedingly, yea, it may carry with it conviction, but it is the book of a partisan all the same, the value of which is to be estimated by varying criteria in each case. Something, but not all, of what we have just said applies to Dr. MacLagan's book. It is not a book which has been rushed through the press, and may be lightly skimmed by the reader, for it contains much solid material—things new and old,—together with much of a purely speculative character, but it contains a good deal which would have been better omitted, a good deal which is self-contradictory, and a good deal which we can hardly think in accordance with fact.

It is a somewhat peculiar circumstance that there has been for many years a scarcity of really good treatises of the more elaborate kind on Rheumatism; and, if possible, the quality of the supply has been worse than the quantity. All kinds of rubbish have been quoted and re-quoted, till it has become part and parcel of what might be called our ignorance, rather than our knowledge, of this exceedingly common and most painful disease. It would have been well, therefore, had Dr. MacLagan made a clean sweep of all this, and begun afresh; but in many places at least he has not done so: whilst of the new matter contributed, some, as we have hinted, is of a very doubtful character. Of course, a book written by Dr. MacLagan on Rheumatism has as its key-note the value and importance of salicin and the salicyl compounds in rheumatism. Of the introduction of such a valuable remedy in rheumatism the author has just reason to be proud, though it may not be of such importance as to demand that a whole treatise on rheumatism should be framed on a purely theoretical conception of its mode of action.

As regards the book itself, it may be divided into two parts—a theoretical, and a practical,—though with the latter a good deal of pure theory is commingled.

The author begins in the true conventional way, giving brief descriptions of three forms of rheumatism—the acute, the subacute, and the chronic,—though he subsequently deals almost entirely with the first of these, or that slighter form of it which is often called subacute, leaving barely noticed that dust-heap of all kinds of painful maladies which we are apt to term chronic rheumatism. Here, at the very outset, stress is laid on one or two points which we cannot help noticing, inasmuch as the same alleged facts are brought up to do duty again and again in other parts of the volume. Thus we are told that “the general course of the fever (in acute rheumatism) is remittent rather than continued.” This, we think, we are in a position to deny, but it is essential to Dr. MacLagan's theory either to prove it or to boldly assert it. We have the assertion, but we want the proof. Not a single temperature-chart, common as these are nowadays, is given in support of the dogma. That there are such variations in the temperature of rheumatic fever as occur day by day in other acute diseases, is well known; that from time to time there may be variations of greater range, we freely admit; that many cases of rheumatic fever are prone to relapse, we full well know; but that there is anything of a periodicity, in the true sense of the word, about acute rheumatism, we stoutly deny. This is one of Dr. MacLagan's new “facts.” The next we shall refer to are older, but of much the same value. It is constantly asserted that two of the prime characteristics of acute rheumatism are an acid reaction of the perspiration, and an acid reaction of the “naturally alkaline saliva.” Nay, we are even told here,

in a paragraph which is supposed to enable men to diagnose pyæmia from acute rheumatism, that in pyæmia the perspiration is not acid, and that this last feature alone is sufficient to decide as to which we have to deal with—pyæmia or acute rheumatism. Surely men who write in this strain must be ignorant of the fact that the sweat is normally an acid secretion, and that an alkaline perspiration is just as unnatural a phenomenon as is the secretion of an alkaline urine by the kidneys. We are not now concerned to say whether or no the perspiration in acute rheumatism is abnormally acid, though we are rather inclined to think that more might be said on this point than has yet been said; we are only concerned to show that this acidity is only the natural reaction of the sweat—intensified, it may be, but, nevertheless, the normal reaction.

So, again, with regard to “the naturally alkaline saliva.” We have never yet found anyone to tell us what he means by this “naturally alkaline saliva.” If by it is intended the pure product of the salivary glands, obtained, say, from a parotid fistula, or by catheterisation of the submaxillary duct, or by any similar process for securing pure glandular saliva, we can only say that its acidity, except as to the first few drops of submaxillary saliva, acid from contact with the mouth, has never yet been proved, either as regards rheumatism or any other disease. But if the mixed saliva of the mouth is meant, it may equally surprise some people to hear that the saliva is by no means so constantly alkaline as has been supposed. When the flow of pure saliva is copious we nearly always find the saliva of the mouth alkaline; when it is scanty, as some little time after a meal, it may be neutral or even acid, especially if any *débris* of food has been allowed to remain behind. This we have proved again and again; nay, we have known the saliva so acid in one without a rheumatic taint that it could not convert starch into sugar until after the addition of an alkali. So much for “the naturally alkaline saliva.”

Of the chapter on the Duration of Rheumatic Fever little need be said. Dr. MacLagan's statements are fair and to the point, though he is inclined to give a shorter limit to it under the old *régime* than is indicated by the saying as to the proper cure for rheumatic fever being six weeks in blankets. But, on the other hand, we are not quite so sanguine of totally getting rid of all rheumatic taint in twenty-four, or even forty-eight, hours by means of any salicyl compound, and the question has yet to be decided whether there is a greater tendency to relapse with or without salicin.

But we enter on somewhat more debatable ground in the chapter which deals with the seat of rheumatism; not that we can have any quarrel with the facts, but the theory is again doubtful in character. We all know that the pain and local changes in rheumatism mainly affect certain structures involved in the larger joints, whilst sometimes the endocardial and pericardial membranes become affected. To these, for certain reasons to be mentioned hereafter, Dr. MacLagan adds muscular tissue, or rather the tendons, aponeuroses, and fibrous textures connected with it. Now, we can no more tell why these joint and heart structures should be selected than why we should have rheumatism at all; nevertheless, the author has formulated his ideas thus: “Rheumatism is essentially a disease of the motor apparatus.” The motor apparatus he divides into *loco-motor* and *vasculo-motor*. But we would ask how does this help us, for out of the enormous number of joints in the human body, only fifteen, including both sides, are apt to be affected, whilst we all know that the left side of the heart may be said to be invariably affected, to the exclusion of the right, the pericardium being equally liable on both sides and both surfaces? But he throws in this additional item of qualification, that those parts are most liable to be affected which are most exposed to strain. Now, without seeking for a moment to deny that strain may have something to do with the selection of the joints specially affected, we would ask if the strain on these fifteen is so very much greater than it is on others which are seldom or never affected? Whence, for instance, comes the excessive strain on the shoulder-joint among the better classes of society? Is the strain on the left side of the heart, its structure being taken into consideration, so much greater than that on the right as to account for the whole of the phenomena familiar to us? Whence comes the strain which covers the whole pericardium

with a thick coating of what we may be still allowed to call lymph? And where does it arise in cerebral rheumatism, which, by the way, is not hyperpyrexia, as some have supposed?

Chapter IV. deals with the nature of rheumatism, which the author considers to be distinctly inflammatory, differing, however, from ordinary inflammation as to seat and nature, either due solely to cold and damp, and in this approximating to inflammatory attacks like pneumonia or pleurisy, or to a specific poison circulating in the blood. The author is not long in showing which side he takes. The action of cold and damp is very briefly dismissed, for the author thinks the question is settled when he shows that rheumatism is not so common in arctic as in temperate climates, though elsewhere (page 192), as we shall have occasion to notice, he says that "a low-lying damp locality, with a cold rather than a warm climate, are the conditions under which rheumatism is most likely to arise." This is perhaps as far as most people would be inclined to go, though such a view is scarcely in consonance with what is stated in Chapter IV. The author's view, to fortify which the whole book seems to have been written, is that rheumatism "is due to the action of a special poison circulating in the blood"; though this is far from making all things clear—notably the selection of sites where the disease expends its force. Consequently he has to back it up by that other theory—of strain—which does not greatly help us. We may, however, admit the theory of a circulating poison, for we do not know everything, and it is rather when we come to consider the views of the author as to the nature and analogies of this poison that we are bound to differ from him. There are two poisons which the author discusses, viz., lactic acid and a purely hypothetical miasm; and Chapter VII. is entirely devoted to a consideration of the former.

In whatever criticism we may here indulge, we shall, for the sake of argument, admit that there is during rheumatic fever an excess of acid in the system or being ejected from the system, even though we are not quite satisfied on the point. That there must be a total excess of acid excreted by the skin, seems clear; that the relative quantity of acid in a given quantity of perspiration is increased, has not been proved. Neither, as far as we are aware, have any actual estimates been made of the total acidity of the urine. These points, however, we may easily lay aside for the moment. We may admit excessive acidity in rheumatism, but, as we have long ago pointed out, and as Dr. MacLagan here most pertinently puts it, this is "no proof that the acid causes the rheumatism." We might just as well say that the painful joints cause the whole constitutional symptoms. The copious acid perspiration is one of the symptoms of acute rheumatism, just as a dry skin is an accompaniment of most other forms of pyrexia. Dr. B. W. Richardson's experiments have been by many accepted as full and sure proofs of the lactic-acid theory of rheumatism. We confess that personally we never looked on them in that light, and, as experimental physiology is now understood, they would be taken by most experimenters to prove nothing. Nevertheless, his suggestions were of some value at the time, were it only that he strenuously insisted on the important fact that only the left side of the heart is affected, to the exclusion of the right, though he totally overlooked in his argument the existence of such a thing as pericarditis. Probably he would have been more correct had he thought of the blood-supply of both; true, the left endocardium is more abundantly and more freely washed with arterial blood than is the pericardium, but the nutrient supply comes from the same source in both.

It is, however, when Dr. MacLagan sets himself to account for the presence of lactic acid in excess during rheumatism, though no special causal connexion exists between the two, that he gets most befogged, especially when he ventures on the misty wilds of physiology. One great difficulty in the way of those who reject the lactic-acid theory of rheumatism has been Dr. B. Foster's case of diabetes, where undoubted symptoms of what seems to have been rheumatism developed themselves after the use of lactic acid. Dr. MacLagan endeavours to get over it. For our own part we simply put it on one side as a thing for which we can neither account on any lactic-acid or other theory; but meanwhile let us hear Dr. MacLagan on the origin and action of lactic acid, leaving undiscussed some statements of the most doubtful

"facts" we have come across for many a day—especially as regards the physiology of carbonic acid and urea. His theory as regards the origin of the lactic acid might not unfairly be put thus, in the form of a syllogism: we know that lactic acid is produced by the increased action of muscle, as in exercise or inflammation; but a muscle is made up of muscular fibres and fibrous tissue; "on this view of the matter, therefore, the excess of lactic acid in acute rheumatism may be secondary to and consequent on the inflammation of the fibrous textures characteristic of the disease." One or two little difficulties occur in the way of accepting these propositions. In the first place, it is commonly supposed to be the true muscular tissue, and not fibrous tissue, which gives rise to lactic acid, deriving it from a source to which we need not farther allude. And need we say that in most cases of rheumatism the limbs are rather kept unnaturally still than in unaccustomed motion; whilst muscular inflammation can hardly be described as one of the regular concomitants of the disease. Finally, the muscular wasting is not greater, if it be so great, as in most forms of continued fever of equal length and violence, especially if the continuous and profuse sweats of acute rheumatism be taken into consideration.

When Dr. MacLagan has slain the lactic-acid theory to his satisfaction, he thinks he has entirely settled any doubt as to the absolute necessity for the admission of an extraneous source of the rheumatic poison. We have already freely admitted that an excess of acid may be merely symptomatic, not causal; but we dare not overlook the possibility—nay, the probability—of the cause of acute rheumatism being something which has its origin within the system. For we could not forget, even if we would, the numerous analogies which exist between rheumatism and gout, the latter of which is commonly admitted to be a distinctly specific disease, having its origin within the system. It would not suit Dr. MacLagan's argument to recognise the close analogy between these two diseases, but everyone who has seen much of both must have done so. And it has been mainly due to the currently received theory as to the causation of gout that the lactic-acid theory of rheumatism has been so readily accepted by the majority of practitioners. But Dr. MacLagan either does not see or will not admit this analogy, and to find anything at all resembling the poison of rheumatism he must go as far afield as malaria. Now we see why he so much insists on the remittent and intermittent character of rheumatism, and pats Dr. Southey on the back because that gentleman recognises an ordinary continued form of rheumatic fever, and that which is prone to relapse. Here it is of the utmost importance to understand what it is to which Dr. MacLagan commits himself. Nowadays we are so much accustomed to germs as associated with disease, in the shape of cause and effect, that we should not be in the slightest degree surprised to hear any day of a germ theory of rheumatism. But our author goes farther: he binds himself down to the particular kind of germ. It is a malarial germ, and the analogues of rheumatic fever are remittent and intermittent fever. Most men would find some little difficulty in perceiving the likeness—except on the "river in Monmouth and the river in Macedon" principle that they are all fevers,—but to the author use has made this easy; nay, he can argue on it and from it. For our own part we cannot very well accept any such view: we shall confine ourselves to one objection. Both rheumatism and gout are markedly hereditary diseases—the latter perhaps more so than the former. Of an hereditary proneness to intermittent fever we have never heard. A disease like gout is sometimes looked upon as really a sign of antiquity and gentility in a family, and is so spoken of; but who ever heard tell of a typhus or small-pox constitution, or of ague as a family complaint? But Dr. MacLagan makes light of heredity, and says it rather agrees with his views than otherwise.

SMALL-POX IN CAPRI.—Small-pox is prevailing in the island in almost an epidemic form, but it is of a mild type. The lower classes refuse to be vaccinated themselves or allow their children to be. The clergy, as an example, have submitted to the operation, and have thus commendably assisted the authorities, and their influence on the inhabitants is great.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 3.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

IN addition to the ordinary work of the Society, the business of the annual meeting was got through. The full report appeared in our last issue.

SQUAMOUS EPITHELIOMA OF THE UPPER JAW.

Mr. BUTLIN showed microscopic sections and drawings of this affection, from a patient aged fifty-eight years, under the care of Mr. Marrant Baker in St. Bartholomew's Hospital. She had complained of pain for about two months before admission. There was no swelling on the outside; but the alveolar process and the hard palate were swollen and painful, the teeth had disappeared, and there was a sinus discharging foetid matter through one of the alveoli into the tumour. Mr. Baker found that the disease had spread much further than was at first supposed, so that it was not possible entirely to remove it. The patient died a few days later of exhaustion. Sections of the growth showed that it consisted of squamous epithelium containing nests, and was similar to a case shown to the Society last year.

ALVEOLATED SARCOMA OF PHALANX.

Mr. BUTLIN also showed this specimen, which had been removed from a young woman's thumb by Dr. Cripps, of Ashford. It had been growing for about eighteen months, and was as large as an almond. On examination the growth was found to consist of an alveolar stroma, containing mixed cells and giant-cells. It was not a carcinoma, but a sarcoma. Sarcoma of the phalanges is not common. He thought it had grown from the outer surface of the peritoneum; it was not encapsuled.

LIVING EXAMPLES OF SKIN DISEASE.

Mr. STARTIN showed these cases:—1. *Morphæa alba* in a woman about sixty years of age: she had a large patch on the outer part of the right thigh; it commenced as a vascular patch, and then became waxy in appearance, and anæsthetic. The disease, pathologically, seems to be a hyperplasia of the corium, which gradually destroys the other structures of the skin. 2. *Xanthelasma*.—The patient, a young child, presented two large patches on the fold of the nates, and lesser patches on the elbows and in the popliteal spaces. It had been noticed two years. She had a brother, now aged two years, who was beginning to present similar appearances. 3. *Neurotic Excoriation*.—This patient was also a child: she presented a disease which he believed to be due to nerve-irritation, and named by Sir Erasmus Wilson as above. The patches were situated on the abdomen and thighs: they looked as if they had been produced by rubbing the skin with some hard, rough substance: the condition varied from time to time—it sometimes nearly healed.

Dr. CROCKER remarked that he could not distinguish this last case from one of eczema. It occurred in places where eczema was most common, and there had been discharge. He failed to see the evidence of nerve influence. Many of the cases of so-called neurotic excoriation had an element of suspicion about them. The Congress case, for instance, was now known to be self-induced. Mr. Sangster had admitted that.

Mr. HUTCHINSON thought the case of xanthelasma was peculiarly interesting; he had never seen one exactly like it, and doubted whether it ought to be called xanthelasma. He would suggest that a committee be formed to report on the case, and on her brother's condition.

(Mr. Startin having signified his assent, the President nominated Mr. Startin, Mr. Hutchinson, Dr. Crocker, and Mr. Sangster as a special sub-committee to examine and report on the case.)

Dr. STEPHEN MACKENZIE agreed for the most part with Dr. Crocker on the "neurotic excoriation" case.

BILHARZIA HÆMATOBIA—URINARY CALCULI.

Dr. ZANCAROL, of Alexandria (introduced by Dr. Cavafy), showed specimens of this distoma taken from patients who

had been under his care; and also a number of urinary calculi, some of large size, which he had removed by lithotomy. The first case was that of an Arab, who died of dysentery two days after admission to hospital. The surface of the intestine was found to be granular, and covered with vegetations. Microscopic examination showed them to be hypertrophic, and between the mucous and the muscular coats the parasite or its ova were found. The second case was from an Arab who had died of disseminated abscess of the kidneys; the mucous membrane of the bladder was covered with vegetations, and was much thickened. The ureters were dilated and inflamed also, and scattered about were the ova of this parasite. He then showed specimens of the adult worm—male and female—the former about one inch in length, the latter about three-quarters of an inch long and more slender. These specimens had been obtained from the portal vein, but they also frequented the vesical and hæmorrhoidal veins. The ova in the genito-urinary track have a lateral spine, those in the portal a terminal spine. Dr. Zancarol then proceeded to trace a connexion between these parasites and the great frequency of vesical calculus observed among the Arabs. He exhibited a large number of stones, many of large size. The bilharzia had been found in all the cases.

Dr. NORMAN MOORE had recently had a patient in St. Bartholomew's Hospital with bilharzia, in whose blood, during the night, filariæ had also been found. He asked whether this was usual. The parasite, he thought, doubtless got into the body through the mouth; but he had learnt that in South Africa the natives believed it might get in through the urethra, and they therefore tied the orifice up with grass before wading or swimming across a river.

Mr. BRYANT asked whether there were any special symptoms of this disease having attacked the bladder.

Dr. ZANCAROL replied. He had only once seen filariæ in these cases, and regarded their presence as accidental. The parasite gets into the body through the mouth; and chiefly with the undistilled water of the Nile. Those only are attacked who are found to drink water which has not been distilled. Europeans are sometimes affected. Hæmaturia is the most prominent symptom of the disease when located in the bladder, and cystitis. The ova may be discovered in the urine on allowing it to stand, and then examining the little dark specks which will be found in it. The embryos only live about twenty-four hours in the urine. The ova are like small pumpkin-seeds, but ciliated. It is not possible to get rid of the disease when once established, but patients may live for years; good diet and hygienic measures give temporary and complete relief.

ULCERS OF THE STOMACH.

Mr. KESTEVEN showed this specimen, which had been removed from a young woman who had appeared to be quite well until the day before her death. Pain and vomiting came on suddenly one day, with collapse and death on the next. One large and several small ulcers were found. The liver was soft and small.

BOVINE TUBERCULOSIS IN A RUMINANT.

Dr. CREIGHTON showed this specimen, which had been removed from an antelope recently dead in the Zoological Gardens. This animal is a ruminant, and, of all, approaches most nearly to the bovine species. The morbid growth covered both surfaces of the diaphragm, and was arranged in the characteristic racemose manner; it resembled very closely what the Germans called *Perlsucht*. The lungs contained small patches of a whitish material, having a calcareous centre. The animal had been in the Gardens about eighteen months, but was born in the Jardin des Plantes in Paris three years ago. The disease was the form of tuberculosis peculiar to the bovine species. A similar case had been observed in Hamburg.

ANNULAR STRICTURE OF THE INTESTINE.

Dr. S. MACKENZIE showed two cases of this disease. The first case came from a woman, aged sixty, who had been suffering from increasing obstruction of the bowels. The abdomen was distended, and there was severe pain. At the autopsy a stricture was found about twelve inches from the anus, which admitted a No. 12 catheter only. The other case was that of a woman aged sixty-one; there had been for a long time habitual constipation, which terminated

in complete obstruction. The stricture was seated in the sigmoid flexure, above which the bowel was much distended.

Dr. SIDNEY COUPLAND asked if there was any ulceration in the cæcum; in many of these cases the ulceration, if any, is found in the cæcum, as though the chief stress of the disease fell there.

Mr. MORRIS also referred to the ulceration commonly found in the cæcum.

Dr. MORRISON referred to a case in which the ulceration finally cicatrised.

Dr. MACKENZIE replied. There were pin-hole spots of ulceration in the colon in one case, and perforation in the other, just above the stricture; with ulceration of cæcum in both cases.

INTESTINAL OBSTRUCTION.

Dr. FOWLER showed this case. The obstruction was caused by loops of the intestine being caught by cords derived from the omentum. The lad from whom the specimen was removed was aged thirteen years; he had received a kick in the abdomen, for which, three days later, he was admitted into the Middlesex Hospital. He was much exhausted, and was vomiting matter with a strong faecal odour. Mr. Hulke performed abdominal section, and, after a search, found a knuckle of strangulated intestine; the constricting band was firm; it was divided. The patient died shortly afterwards. At the autopsy there was found limited peritonitis. The omentum was folded up below the transverse colon, and going down from each side of it towards the pelvis was a firm cord, about the size of a goose-quill. That on the right side was about twelve inches long; it crossed the ileum near the caput coli, and then turned upwards, joined the left cord, and became lost in the mesentery. The left cord was about ten inches long. The obstruction was probably caused by a coil of ileum slipping beneath the left cord at the time of the blow.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 10.

ALEXANDER WHYTE BARCLAY, M.D., President, in the Chair.

CASES OF TUMOUR ARISING IN THE SKIN-GLANDS OF THE DOG.

Dr. CREIGHTON read a paper on three cases of tumour arising in the skin-glands of the dog, showing the connexion between disorder of the secreting structure and function, and cancerous invasion of the connective tissue, of which the following is an abstract:—1. The glands in the dog's skin, which were the seat of tumour-formation in three cases, are not sweat-glands; it is only in the sole of the foot that the ordinary glomerular sweat-glands occur in the dog. The secretion, as observed within the glands in section, is sometimes a viscid, mucus-like fluid, and at other times a compact mass of large spherical cells of yellowish-brown colour and granular substance, obviously transformed epithelial cells. The convoluted glandular tube has a wide lumen, and is distinguished and always easily identified by the well-known coat of plain muscular fibres, forming a close and uniform membrane on which the epithelial cells directly rest. Glands of the same kind occur in man in the form of a lobulated patch of yellowish substance adhering to the under surface of the skin at the highest point of the axilla; it varies much in its extent, and is often wanting. A homologous gland, of a conglobate form, is found in the platypus (monotreme) under the skin at the lower end of the humerus; it was erroneously described by Meckel as a lymphatic gland. The glandular stratum of the human axilla may extend towards the pectoral region, and may become the seat of a tumour. 2. Two of the tumours from the dog's skin exemplify the infiltration of epithelial glandular products into the spaces of the connective tissue around the glands. In the appearances described and figured from those two cases the author finds support for the doctrine of extra-glandular accumulation of solid or cellular products of the secretion, as already put forward by him for the breast. The origin of the tumours is to be referred not to a disorder of glandular structure, but to a disorder of glandular struc-

ture and function. 3. The third tumour was a true cancer (scirrhus) proceeding from the same glands in the skin of the dog's back. A coil of intact glandular tube, as figured, is encountered here and there in the sections of the tumour. The cancerous element in the third tumour consists in the extension of disease to the connective tissue; the connective tissue corpuscles are infected by epithelial cells in such a manner that they assume the characters of the epithelial cells from which the infecting influence issued. The epithelial cells exercise that infecting influence both in their normal position on the walls of the glandular tube, in which case the rows of cells next to the basement membrane are the first to transform themselves into the likeness of epithelium; and the same infecting influence may be exercised by those glandular cells that are carried into the spaces of the connective tissue, in which case the infection does not spread from the margin of the glandular tube outwards, but it breaks out at independent points in the stroma. The transformation of connective tissue corpuscles into epithelial cells is described and figured in detail. A certain condition of the stroma, most usually occurring after middle life, is supposed to be favourable to the establishment of cancerous infection in an epithelial organ or part in which there has been disorder of function.

Mr. BUTLIN said that it was impossible to criticise such a paper on so short a notice. Longer time was required especially for the examination of drawings and specimens to fully understand them. Some time ago they had been asked to believe that epithelial cells always originated in wandering cells or leucocytes. It had, however, been shown that epidermal cells do arise from pre-existing fixed cells. Neither could he altogether agree with the view advanced by Dr. Creighton, that sarcomata may arise from epithelial elements. They were now asked to consider how the new cells originated from old cells of an epithelial type. Nature, he suggested, had different methods of attaining the same end, as when bone grew from membrane and from cartilage. So there might be various ways in which carcinomata originated.

Dr. THIN did not read Dr. Creighton's results in the same way as Mr. Butlin did. He understood these to signify that there was an overgrowth of cells in the gland, and that they escaped into the connective tissues; when, acting as spermatic elements, they impressed their epithelial character on the connective-tissue corpuscles, which thus became epithelial in type. But all were not agreed as to the history of cell-growth, and until that was so there could be no unanimity in other respects. The true connective-tissue corpuscles were very rare in the skin, and there was no evidence of any in Dr. Creighton's specimens. What were called connective-tissue corpuscles were really wandering cells. No one had ever seen a cell dividing in the rete mucosum; it must grow therefore by these wandering cells.

Mr. CRIPPS said that in some rectal tumours there were to be found cells both of the epithelial and of the leucocyte type, the epithelial being the perfect type, the leucocyte the larval. He was inclined to think that these leucocytes originated in the more superficial epithelial cells, and as the whole intestine was lined with columnar epithelium, with leucocytes lying beneath, he suggested that the white blood-corpuscles might normally originate there.

Mr. W. PYE thought such a theory as that of the origin of normal leucocytes in columnar epithelium rather a misuse of the imagination.

Dr. CREIGHTON, in reply, said he desired to emphasise the remark that secretions were sometimes fluid, sometimes solid and cellular; and it was a fact that in the specimens shown many of the cells had accumulated in the submucous tissue instead of escaping by the duct. This was a true infiltration of epithelium in connective tissue, but was not essentially cancerous; it was only when these escaped cells began to act on the connective-tissue corpuscles that these tended to assume a cancerous type and character, with a grouping and arrangement like epithelial cells. It was not likely that epithelial cells originated in more than one way, and he thought that many of the rectal leucocytes spoken of were formed from epithelium.

Dr. FELIX SEMON has been elected Assistant-Physician for Diseases of the Throat to St. Thomas's Hospital.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 13.

JOSEPH LISTER, D.C.L., F.R.C.S., F.R.S., President,
in the Chair.

ADJOURNED DISCUSSION ON MYXŒDEMA.

THE adjourned discussion on myxœdema was resumed by Dr. HERON, who brought a patient who presented many of the characteristic features of chronic Bright's disease and of myxœdema. The man was a publican, aged fifty-four, who had been subject to gout. When about twenty he had typhus fever, and ever since had been troubled with palpitation. He looked the subject of chronic albuminuria, but had none; his eyelids were puffy, his face swollen and pallid; his arteries thick, and his left heart enlarged. His hands and feet were also very puffy; but there was no albumen in the urine, and no patches in the eyes.

Dr. GOODHART thought there were certain points in Dr. Mahomed's case which should be emphasised. The patient was a male for one thing, and though the symptoms were well marked during life, there were no indications of myxœdema after death. The heart was diseased, and some of the viscera indurated or india-rubber-like, especially the brain. The connective tissue was full of a jelly-like fluid, but it contained no excess of mucin; the condition thus presented rather the characters of chronic œdema than of myxœdema. Chronic œdema, therefore, seemed to give rise to some of the characters of the latter disease, but not to all. The nervous symptoms, for instance, might be due to a variety of causes. Certainly all the symptoms of myxœdema were not due to chronic Bright's disease.

Dr. MARCET considered myxœdema to be a special disease, and not chronic Bright's. It occurred mostly in women. The skin was not of the same appearance as in chronic œdema; the nervous symptoms were marked; the illness was protracted, and albuminuria only appeared at the end. Through the characteristic imbecility it was allied to cretinism. The post-mortem appearances were those of malnutrition and ill-formed connective tissue. It was rather a malformation than a degeneration. Mucin was not so very characteristic a constituent, but there might be others, and the mucous-like fluid might be due to Dickinson's altered fibrin or waxy material. The urine seemed to contain less urea than normal, but that was of little importance. Chloride of sodium was commonly diminished in œdema, and the quantity should be tested here. The temperature was lowered in myxœdema; perhaps there were some modifications in respiration.

Dr. F. TAYLER mentioned the case of a female, aged thirty-five, who presented the usual symptoms of myxœdema, with deafness and cramps in the thighs. The tendon reflexes were normal. There was some menorrhagia. She was the mother of two children, and she dated her illness from the birth of the last. There was a strongly neurotic history on the father's side, and her mother had died of what he considered must have been myxœdema.

Dr. HADDEN said that in these cases we got slowness of mental processes and of bodily motion. Probably this was due to some lesion of the sympathetic. There were both diminished heat and tissue change; probably, also, there was disease of the thyroid. He had removed some parts of the sympathetic for examination. Probably, however, the medulla oblongata was affected too, as in some there had been bulbar symptoms.

Dr. S. TAYLOR thought that there was a marked change in the appearance of the brain. Generally the disease occurred in people who had been much worried and troubled. All the symptoms showed a nervous origin. Often there was no change in the kidneys, either fibrous or epithelial.

Dr. DYCE DUCKWORTH considered Dr. Mahomed's remarks rather pathological than clinical, and for his own part he was not prepared to accept the views advanced by Dr. Mahomed. Degenerations were not always produced in the same way, and certainly the disease called myxœdema was not chronic Bright's, for albuminuria occurred only at the end, when the kidneys became affected by the disease. Certainly it would be curious if out of the vast number of cases of chronic Bright's disease so few cases of true myxœdema should be recorded. Were the two identical?

Dr. ORD, in reply, proceeded to sum up the clinical and pathological characters of myxœdema. Thus, the subjects were generally women; there was never albuminuria in the early stages, nor in some cases at all; there was general swelling of the integuments, which were semi-transparent, rough, and non-perspiring; the hair was scanty; the teeth bad; the temperature low; the thyroid small; the speech slow, imperfect, and nasal; thought and perception slow, but perfect. The patients were apt to become irritable and timid, sometimes demented, and finally comatose. Occasionally death arose from general debility, sometimes from uræmia. Throughout the body the interstitial tissue was swollen and nuclear, its quantity increased and containing mucin; it encroached on all the normal structures, which became atrophied, as in the hair, sebaceous and even the sweat glands, heart, liver, and other internal organs. The idea that this was Bright's disease without albuminuria was soon negatived, though Dr. Mahomed would extend the term even to myxœdema, thus going farther than even Gull and Sutton in their arterio-capillary fibrosis. This would surely be carrying the idea of Bright's disease too far. The theory of sympathetic origin did not commend itself to him, for there was no evidence that the sympathetic had trophic functions. Probably, as regards the nervous system, the central organs were affected in the same way as were the peripheral, as suggested by Dr. Goodhart. He did not think, however, that the change was due to a degeneration, but rather to a malformation of tissue. The question of heredity was new. He was not prepared with any special theory to explain the disease in its totality.

GENERAL CORRESPONDENCE.

THE THERMOMETRICAL MEASUREMENT OF
PARADOXICAL TEMPERATURES.

LETTER FROM DR. J. McCRAITH.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have read with much surprise, and, I must add, much incredulity, the case of excessively high temperature detailed in your number of December 10. Such a temperature as 133° must, I conceive, be speedily destructive of life. That some deceit has been practised must be self-evident to any medical man. But what deceit? The registered degree is there, and how explain it? This trick, when seen through, is very simple, like those on cards, and I venture to offer the following explanation:—As the thermometer lies in the axilla, the cunning hysterical girl has only to "fillip," with the thumb of the opposite hand, the end of the instrument hanging down; and a few gentle "fillips" (*striking the end of the instrument with the thumb-nail*) will, of course, make the index mount to any degree you wish. I suppose the word "fillip" will be universally understood; it is the movement—sudden extension of the thumb—by which a boy shoots from his hand a marble; or the same movement made with the index finger, by which one drives off a fly or a particle of dust from his coat-sleeve. To prevent this trick one has simply to make the patient keep both hands clasped together on the breast.

I am, &c., JAMES McCRAITH, M.D., F.R.C.S.

Smyrna, December 21, 1881.

"FOOTBALL FATALITIES."

[To the Editor of the Medical Times and Gazette.]

SIR,—In the *Medical Times and Gazette* of Saturday, page 53, it is stated that the son of the Principal of Jesus College died from injuries caused when playing at football. Your readers may, perhaps, be willing to receive this explanation of the circumstances of the case.

One evening I saw it stated in a newspaper that the lad in question had died from the effects of an injury at football at Sherborne School. Next day, in the course of conversation with a practitioner whom I met accidentally, I heard that the lad died in Oxford at his father's house. Upon the statement publicly made, attributing the death to an act of violence, and upon the death within this city, I

felt it to be my duty to call upon the Registrar for the certificate on which the death had been registered; and, as it did not refer to the alleged injury, I went to Dr. Tuckwell, the practitioner who had certified. Dr. Tuckwell told me that the circumstances of the injury had not escaped his attention, that the injury, such as it was, had been received in March, and that the lad continued the game without being disabled. He continued in perfect health for a month; and he had since passed a highly creditable examination in book-work. Dr. Tuckwell said that, though the illness followed the injury, the long interval of perfect health made him hesitate to accept the injury as the necessary cause of the illness, or to withhold his certificate of death from natural causes.

To this I take the liberty of adding that, with the facts brought to my knowledge, I considered that there was no cause for interference on the part of

Yours, &c.,

Oxford, January 16.

THE CORONER.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, December 9, 10, 11, and 12, the following candidates were successful:—

For the First Professional Examination—

Kenealy, Arabella. | Robinson, Henry.

For the Licence to practise Medicine—

Ashe, St. George. | O'Doherty, Edward Hyacinth.
Hodgson, George James. | Peyton, Henry Reynolds.

For the Licence to practise Midwifery—

Ashe, St. George. | Hodgson, George James.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership under the Supplemental Charter of 1878, were duly admitted Members:—

Davys, Francis Joseph, 1860, Swords, co. Dublin.
Fitzgibbon, Henry, 1875, Dublin.
Smith, George, 1875, Surgeon H.M.S. *Penelope*.

(The numerals indicate the year in which the Licence of the College was obtained.)

At a special examination held on Tuesday and Wednesday, December 20 and 21, 1881, the following candidates were successful:—

For the First Professional Examination—

Underwood, Charles Henry.

For the Licence to practise Medicine—

Taylor, Alfred.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 12th inst., and when eligible will be admitted to the pass examination, viz.:—

Bishop, Charles R., of King's College Hospital.
Clayton, Geoffrey S., of St. Bartholomew's Hospital.
Dixon, Henry W., of the Newcastle School.
Farmer, William H. F., of St. Bartholomew's Hospital.
Griggs, William A., of St. Bartholomew's Hospital.
Jolly, Sydney B., of St. Thomas's Hospital.
Shelswell, William A., of Guy's Hospital.
Thomas, Arthur W. G., of the Charing-cross Hospital.
Tweed, Edward R., of St. George's Hospital.

Two candidates having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months. With this meeting the Primary Examinations were brought to a close, when, out of the 179 candidates examined, no less than sixty-nine were referred to their studies, including eleven who had an additional three months.

At a meeting of the Council the same day, Mr. Richard Cross, M.D. St. Andrews, of Carlton House, Scarborough, who had previously been elected a Fellow of the College, was admitted as such, his diploma of membership bearing date March 30, 1840.

The following gentlemen, having undergone the necessary examinations, were admitted Members of the College at a meeting of the Court of Examiners on the 17th inst., viz.:—

Bamford, Charles R., Uttoxeter.
Batten, Rayner D., Palace-gardens, Kensington.
Broom, Arthur R., Ottery St. Mary, Devon.
Canton, Herbert, Finsbury-park.
Collins, Octavius A. G., Kingstown, Dublin.
Griffiths, Charles T., Cathcart-road, South Kensington.
Heelis, Robert, L.S.A., Carshalton.
Hendriks, Cecil M., Jamaica.
Jenkins, Edward J., M.A. Oxon., Sydney, N.S.W.
Lawson, George L. L., L.R.C.P. Edin., Egremont, Cumberland.
Martin, Joseph H., L.S.A., Northampton.
Mayo, F. Herbert, Deal.
Mears, Frederick C., L.S.A., Bromley-by-Bow.
Mill, William, Cholwell, near Tavistock.
Openshaw, Thomas H., L.S.A., Bury, Lancashire.
Paget, Thomas E., Cambridge.
Travers, Geoffrey F., Garden-court, Temple.
Wallace, Alfred C., L.R.C.P. Lond., Streatham.
Willey, Alexander G., Southsea, Hants.
Wright, Richard S., Sutherland-gardens.

Eight candidates were rejected. The following gentlemen were admitted on the 18th inst., viz.:—

Bass, Frederick, Tufnell-park, N.
Ellis, William G., Wellington, Somerset.
Nance, Arthur S., Eccleshall, Staffordshire.
Power, D'Arey, M.A. Oxon., Great Cumberland-place, W.
Price, J. A. Parry, Brecon, South Wales.
Robertson, James, L.R.C.P. Edin., Pall-mall, S.W.
Rumbold, Charles F., Melksham, Wilts.
Simmons, Herbert C., Tufnell-park, N.
Stephens, Lockhart E. W., L.S.A., Emsworth, Hants.
Stow, Charles L., Tunbridge.
Trevor, Edward T., Queen's-gardens, Bayswater.
Veitch, Quinton R., Exeter.

Ten candidates were rejected.

Primary Examinations.—At the Anatomical and Physiological Examinations for the diploma of Membership of the Royal College of Surgeons, the following were the questions on Anatomy submitted to the candidates, from one to three o'clock p.m., when they were required to answer (in writing) four, and not more, of the six questions:—

1. Describe the thorax as a whole.
2. Describe the different kinds of diarthrodial joints, and give examples of each kind.
3. Describe the attachments and give the relations and nervous supply of the omo-hyoid muscle.
4. Describe the anastomoses around the ankle-joint, and the course of the vessels entering into the formation of these anastomoses.
5. Describe the course and distribution of the lymphatics of the bladder, penis, scrotum, and testis.
6. Describe the course of the nerves supplying the muscles of mastication; mention the position where they severally enter the respective muscles.

The following were the questions on Physiology, from four to six o'clock, viz.:—

1. Give the structure of a medium-sized artery and vein; and compare the conditions under which the blood moves in these vessels respectively.
2. State the average air capacity of the lungs. How may this be determined? How is respiration affected by external conditions?
3. Describe the microscopical structure of a lobule of the pancreas, and the changes that take place in its cells during the different phases of their secretory activity.
4. What are the functions of the third pair of cerebral nerves? How may these functions be determined?
5. Define and explain the terms—systole, inhibition, astigmatism, summation of contraction; and distinguish between tone and quality of sound.
6. Describe the structure of the mucous membrane of the large intestine. What are the uses of the large intestine? Of the 179 candidates now going through their Anatomical and Physiological Examinations, it is stated that no less than eighty-four have been up from one to six times.

Professional Examinations.—The new regulations with regard to the pass examinations of candidates for the diploma of Membership of the Royal College of Surgeons has just come into operation, by which all candidates will have to undergo an examination in Obstetrics in addition to the other subjects, unless already in possession of a recognised medical degree or licence which includes midwifery. At the written portion of the examination of the 123 candidates on Friday and Saturday last, the following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to them from 1.30 to 4.30 p.m., when they were required to answer at least four (including one of the first two) out of the six questions, viz.:—

1. Enumerate the structures that must necessarily be divided in removal of the clavicle, and name the important parts in danger of being wounded.
2. Mention the structures which are in contact with the male urinary bladder.
3. Describe a case of acute abscess of the mammary gland, and give the

appropriate treatment throughout. 4. Mention the obstacles to reduction which may exist in the case of a large scrotal hernia. 5. Describe the symptoms and treatment of gonorrhoeal ophthalmia. 6. Describe the appearances presented on dissection in a case of necrosis of the shaft of the tibia in an advanced stage. The following were the questions on Midwifery and the Diseases of Women on the 14th, from 12.30 to 2 p.m., when candidates were required to answer three out of the four questions, viz.:—1. What are the causes of hæmorrhage during the first stage of labour? How would you treat them? 2. What are the difficulties and dangers special to labour with the breech presenting? How would you deal with them? 3. What are the signs and symptoms of pregnancy at the seventh month? Mention those on which you would rely in making a diagnosis. 4. How would you distinguish between fibrous polypus of the uterus and inversion of the uterus? The following were the questions on the Principles and Practice of Medicine, on the same day, from 2.30 to 4.30 p.m., when candidates were required to answer three out of the four questions, including No. 4, viz.:—1. What are the causes of hæmorrhage into the brain; in what parts does it commonly occur; and what are the symptoms which result from it? 2. What are the causes, morbid anatomy, signs, prognosis, and treatment of typhlitis? 3. What are the causes of general dropsy? How would you distinguish its several varieties, and how treat them? 4. State the effects, uses, and doses of the following drugs:—Iodide of potassium, bromide of potassium, creasote, acetate of lead, dilute hydrocyanic acid, liq. morphia hydrochloratis, liq. strychnia, vinum colchici, tr. aconiti, tr. nucis vomicae. The candidates at this pass examination are some forty less in number than those who presented themselves at the corresponding examination in January last year.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 12:—

Davies, Edward Cluneglas, Pontfain, Lampeter.
Mears, Frederick Charles, Bromley-by-Bow.
Nicholson, Frederick William, Upper Richmond-road, Putney.
Openshaw, Thomas Horrocks, Bury, Lancashire.
Stuart, Sidney Offord, Woolwich.

The following gentleman also on the same day passed his Primary Professional Examination:—

Crone, John Smyth, Queen's University, Ireland.

BIRTHS.

BROWN.—On January 12, at 17, Hartington-place, Eastbourne, the wife of Charles Brown, M.D., prematurely, of a son.
COUPLAND.—On January 17, at 14, Weymouth-street, Portland-place, W., the wife of Sidney Coupland, M.D., F.R.C.P., of a son.
CUMBERBATCH.—On January 18, at 17, Queen Anne-street, Cavendish-square, the wife of A. B. Cumberbatch, M.B., F.R.C.S., of a daughter.
McMULLEN.—On January 4, at 319A, Brixton-road, the wife of William McMullen, L.K. & Q.C.P., of a daughter.
ORWIN.—On January 10, at 2, Ospringe-road, Brecknock-road, N.W., the wife of Arthur Wigelsworth Orwin, M.D., of a son.
WEBB.—On January 12, at Meerut, North-West Provinces of India, the wife of Deputy Surgeon-General William Marshall Webb, Army Medical Department, of a daughter.

MARRIAGES.

BEAZLEY—KING.—On January 14, at Highbury New-park, George Arthur Beazley, Esq., of Cranbrook Park-villas, Ilford, Essex, to Agnes, youngest daughter of Charles King, M.R.C.S., of 23, Highbury-park.
DAWSON—ORFORD.—On December 20, 1881, at Brockville, Ontario, Canada, George W. W. Dawson, Esq., of Plevna, Ontario, to Amy Elizabeth, third daughter of William Cockerall Orford, F.R.C.S., of Peterborough, formerly of Birmingham, England.
GROUND—GOODCHILD.—On January 19, at Little Waltham, Essex, Edward Ground, M.B., of Maidstone, to Eleanor, third daughter of Arthur Goodchild, Esq., of Little Waltham, Chelmsford.
MASON—CAMPBELL.—On January 17, at Edinburgh, J. Lindsay Mason, M.D., of Brailsford, Derby, to Mary, elder daughter of the late Peter Campbell, Esq., of Reay, Caithness.
O'CONNOR—MATTHEWS.—On January 7, at Spanish-place, D. M. O'Connor, L.K. & Q.C.P., of Workop, Nottingham, to Jessie, second daughter of Captain Matthews, late Indian Army.
PEDLER—GILLETT.—On January 11, at Geldeston, Norfolk, George Henry Pedler, L.R.C.P., of 6, Trevor-terrace, Rutland-gate, S.W., to Maria Stratford Howard, only daughter of the Rev. Daniel Gillett, rector of Geldeston.
TREWMAN—RASHLEIGH.—On January 10, at Woolston, George Turner Trewman, M.B., Surgeon Army Medical Department, to Florence Mary, younger daughter of the late Charles Stockhouse Rashleigh, Esq., of Wickham, Hants.

WILLIAMS—HOWAT.—On January 17, at Paddington, Dawson Williams, M.D., to Catherine, youngest daughter of the late Robert Kirkpatrick Howat, Esq., of Mabie, J.P. and D.L. for the Stewartry of Kirkcudbright, N.B.

DEATHS.

BAIRD, ANDREW WOOD, M.D., M.R.C.P., at 7, Camden-crescent, Dover, on January 10.
DAVIES, HENRY, M.R.C.S., at North End House, Warley, Brentwood, Essex, on January 13, aged 57.
JEFFERY, ANN, widow of the late George Jeffery, Esq., of Camborne, Cornwall, etc., and mother of G. A. Jeffery, M.D., of Eastbourne, at Brighton, on January 7, in her 81st year.
PEARCE, RAVENHILL, M.D., at Brighton, on January 8, in his 51st year.
SOUTH, JOHN FLINT, F.R.C.S., of Blackheath Park, on January 6, in his 85th year.
THORP, JOHN, M.R.C.S., at Malden, Essex, on January 15, in his 80th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BEDFORD GENERAL INFIRMARY.—Resident Surgeon. Candidates must be doubly qualified. Other particulars can be obtained from the Secretary, to whom applications, with testimonials, are to be sent not later than January 26.

CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Candidates must be registered to practise in medicine and surgery, and acquainted with the Welsh language. Applications, with testimonials, to be sent to the Secretary, on or before February 11.

CHARING-CROSS HOSPITAL.—Assistant-Physician. (For particulars see Advertisement.)

CRAIGLOCKHART HYDROPATHIC, NEAR EDINBURGH.—Resident Physician. (For particulars see Advertisement.)

DENTAL HOSPITAL OF LONDON, LEICESTER-SQUARE.—Dental Surgeon. (For particulars see Advertisement.)

EPSOM UNION.—Medical Officer. (For particulars see Advertisement.)

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, PENDLEBURY, AND GARTSIDE-STREET, MANCHESTER.—Physician. (For particulars see Advertisement.)

GREAT WESTERN RAILWAY.—Medical Officer. (For particulars see Advertisement.)

HECKMONDWIKE INDUSTRIAL CO-OPERATIVE SOCIETY (LIMITED).—Medical Aid Department.—Resident Medical Officer. Candidates must be duly registered, and possess a diploma or degree in surgery from the College of Surgeons of London, Edinburgh, or Dublin, or from one of the universities, and a diploma, degree, or licence in medicine from a university or duly recognised licensing body in Great Britain or Ireland. Applications, stating age, whether married or single, with testimonials, to be sent to the Heckmondwike Industrial Co-operative Society (Limited), Oak-street, Heckmondwike, not later than January 26.

HUDDERSFIELD INFIRMARY.—Senior House-Surgeon and a Junior House-Surgeon. Candidates for the former must be doubly qualified, and for the latter they must possess, at least, one registered qualification. Applications and testimonials to be sent to Fredk. Eastwood, Hon. Secretary, not later than January 21.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Visiting Physician. (For particulars see Advertisement.)

MONMOUTH UNION.—Medical Officer. (For particulars see Advertisement.)

ROYAL CORNWALL INFIRMARY.—House-Surgeon. Candidates must be legally registered to practise both in medicine and surgery. Applications, stating age, with testimonials, to be sent to the Secretary, Royal Cornwall Infirmary, Truro, before January 26.

WEST HERTS INFIRMARY, HEMEL HEMPSTEAD.—House-Surgeon and Dispenser and Assistant-Secretary. Candidates must be qualified in medicine and surgery, duly registered, and unmarried. Applications, with testimonials and certificates of registration, to be sent to the Secretary, on or before February 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Amersham Union.—The Beaconsfield District is vacant by the resignation of Mr. Thomas M. Parrott: area 5340; population 1840; salary £43 per annum.

Bridgnorth Union.—Mr. A. Collis has resigned the Third District and the Workhouse: area 26,591; population 6353; salary £70 per annum. Salary for Workhouse £27 per annum.

Carnarvon Union.—Mr. Richard Williams has resigned the Llanrug District: area 28,639; population 14,780; salary £60 per annum.

Ripon Union.—Mr. W. E. Ledger has resigned the Third District: area 25,517; population 2392; salary £30 per annum.

Titchhurst Union.—Mr. A. A. Cohen has resigned the Burwash District: area 7277; population 2532; salary £55 per annum.

Wallingford Union.—The Cholsey District is vacant by the death of Mr. John Breach: area 15,292; population 4142; salary £115 per annum.

Watford Union.—The Abbots Langley District is vacant by the death of Mr. Charles Wotton: salary £60 per annum.

APPOINTMENTS.

Basford Union.—James F. D. Willoughby, M.R.C.S. Eng., to the Ilkeston District.

Bingham Union.—Wm. W. Morris, L.R.C.P. Lond., L.S.A., to the Eastern District.
Castle Ward Union.—Gerald H. Fitzgerald, M.D. and C.M. Ire., to the Pontland District and the Workhouse.
Sunderland.—Alfred Edwin Harris as Analyst for the Borough, *vice* Mr. Yeld, deceased.

ABSCCESS OF THE BREAST.—In a clinical lecture delivered at La Charité, M. Desprès commented on four cases of the breast which had been attended with some apparently alarming symptoms. For more than a week after the abscess was opened and drained these patients exhibited a very high temperature (40° C. to 41° C.), and afterwards had considerable oscillations, exactly like what is observed in purulent infection; shiverings and a slight sub-icteric tinge completed the analogy; and those who had not been previously informed of the nature of these cases might readily believe themselves to be in the presence of this terrible complication. But there was on the part of M. Desprès no uneasiness in regard to these cases, as he had so often witnessed these abscesses of the breast supervening within the two first months after delivery accompanied by these symptoms. He had met with too many cases to allow of the present ones being regarded as chance exceptions.—*Revue Méd.* December 31.

APPOINTMENTS FOR THE WEEK.

January 21. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Professor E. Pauer, "Louis van Beethoven."

23. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
MEDICAL SOCIETY OF LONDON, 8½ p.m. The Lettsomian Lectures, by Mr. Hutchinson Royes Bell, "On Diseases of the Testicles and their Coverings." Lecture II.

24. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
ROYAL INSTITUTION, 3 p.m. Professor John G. McKendrick, "The Mechanism of the Senses."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. Robert Barnes, "On Hernia of the Ovary," with the relation of Cases observed by the Author.

25. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.
HUNTERIAN SOCIETY (London Institution) (Council Meeting, 7½), 8 p.m. Report of Committee on Mr. Stevens's Case of Cerebral Tumour. Dr. Carrington, "On Cases of Hepatic Abscess associated with Dysentery." Dr. Turner, "On Miliary Aneurisms from a Case of Cerebral Hemorrhage."
ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY, 8½ p.m. General Meeting for the Election of Officers and Council.

26. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.
ROYAL INSTITUTION, 3 p.m. Mr. H. N. Moseley, "Corals."

27. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.
QUERKETT MICROSCOPICAL CLUB (University College), 8 p.m. Mr. J. G. Waller, "On Sand."
CLINICAL SOCIETY, 8½ p.m. Mr. W. H. Kesteven, "On a Case of Unilateral Xanthopsia." Cases of Renal Calculus removed by Operation by (1) Mr. Marcus Beck, (2) Mr. Butlin, (3) Dr. Whiphram and Mr. Howard.
ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Mr. R. S. Poole, "The Museum and Libraries of Alexandria."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 14, 1882.

BIRTHS.

Births of Boys, 1362; Girls, 1303; Total, 2665.
 Corrected weekly average in the 10 years 1872-81, 2745.4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	873	834	1737
Weekly average of the ten years 1872-81, } corrected to increased population ...	884.0	883.5	1767.5
Deaths of people aged 80 and upwards ...	...	...	63

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	668993	1	10	3	2	14	...	1	...	2
North ...	905677	1	4	5	2	24	1	12	...	1
Central ...	281793	...	...	3	1	6	...	1	1	2
East ...	692530	1	7	6	4	33	1	3	1	2
South ...	1265578	18	23	21	5	39	3	7	...	6
Total ...	3814571	21	44	38	14	116	5	24	2	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	30.138 in.
Mean temperature ...	...	...	...	...	...	43.9°
Highest point of thermometer ...	...	...	...	...	...	52.9°
Lowest point of thermometer ...	...	...	...	...	...	36.0°
Mean dew-point temperature ...	...	...	...	...	...	40.5°
General direction of wind ...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0.58 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Jan. 14, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Jan. 14.	Deaths Registered during the week ending Jan. 14.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3891078	2665	1737	23.3	52.9	36.0	43.9	6.61	0.58	1.47
Brighton ...	109573	63	67	31.9	49.0	34.7	43.2	6.22	0.40	1.02
Portsmouth ...	129875	82	49	19.7	...	...	...	...	...	...
Norwich ...	83821	77	28	16.5	...	...	...	...	...	...
Plymouth ...	74449	60	29	20.3	53.8	35.3	46.6	8.12	0.39	0.99
Bristol ...	210134	139	81	20.1	51.2	37.5	44.4	6.89	1.09	2.77
Wolverhampton ...	76756	62	46	31.3	48.5	31.5	40.1	4.50	0.58	1.47
Birmingham ...	408532	335	166	21.2	...	...	...	...	...	...
Leicester ...	126275	72	35	14.5	51.5	33.8	41.2	5.11	0.63	1.60
Nottingham ...	193573	166	102	27.5	50.0	34.1	41.5	5.28	0.30	0.76
Derby ...	83587	72	28	17.5	...	...	...	...	...	...
Birkenhead ...	86532	64	37	22.3	...	...	...	...	...	...
Liverpool ...	560283	415	278	25.9	50.9	39.4	44.6	7.01	0.28	0.71
Bolton ...	106767	95	44	21.5	...	...	...	...	...	...
Manchester ...	340316	273	184	28.2	...	...	...	...	...	...
Salford ...	184001	148	90	25.5	...	...	...	...	...	...
Oldham ...	115572	87	58	26.2	...	...	...	...	...	...
Blackburn ...	106460	82	55	27.0	...	...	...	...	...	...
Preston ...	97656	85	65	34.7	...	...	...	...	...	...
Huddersfield ...	83418	43	29	18.1	...	...	...	...	...	...
Halifax ...	74713	37	26	18.2	...	...	...	...	...	...
Bradford ...	188101	115	63	17.5	49.3	37.0	43.4	6.33	0.44	1.12
Leeds ...	315998	250	142	23.4	49.0	38.0	42.9	6.06	0.30	0.76
Sheffield ...	290516	200	123	22.1	51.0	36.5	43.4	6.33	0.28	0.66
Hull ...	158857	118	69	22.3	48.0	34.0	41.2	5.11	0.23	0.58
Sunderland ...	119065	101	44	19.3	51.0	35.0	43.8	6.56	0.08	0.20
Newcastle ...	147626	117	71	25.1	...	...	...	...	...	...
Cardiff ...	83724	66	38	22.9	...	...	...	...	...	...
For 28 towns ...	8455308	8089	3783	23.3	53.8	31.5	43.1	6.17	0.43	1.09
Edinburgh ...	232440	156	89	20.0	53.0	35.8	43.3	6.23	0.06	0.15
Glasgow ...	514048	406	267	27.1	57.0	36.0	43.8	6.56	0.89	2.26
Dublin ...	348293	191	234	35.1	59.0	35.0	46.0	7.78	0.09	0.23

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30.14 in. The lowest reading was 29.66 in. on Monday morning, and the highest 30.46 in. by the end of the week.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Preliminary Examinations.—All inquiries with respect to recognised preliminary examinations should be addressed to the Registrar of the General Medical Council, 299, Oxford-street, London, W.

John Forster, Esq., Crafers, near Adelaide, South Australia.—Letter and enclosure received.

O.C., South Kensington.—There are very good European doctors and chemists at Alexandria and Cairo. At Alexandria the hospital of the Deaconesses of Kaiserswerth, outside the Moharron Bey Gate, is tended by European doctors, and the nursing is done by the Deaconesses. First-class patients pay 5s. a day; second, 3s.; and the third are treated gratis. There are no restrictions as to religion. The European hospital in the Boulevard Ismail is managed by a committee composed of members of the European community. Patients are admitted by a ticket from the Consulate of the nation to which they belong. The charges are from eight to two francs per day. Sisters of charity are the nurses.

Felix.—The only trades to which the provisions of the original Factory Acts were applicable were the manufactures of cotton and woollen cloths.

A Novelty in Sanitary Lectures.—The Manchester and Salford Sanitary Association are about to give a series of lectures on Health during the dinner-hour of the operatives in large works. These are not to be after-dinner lectures or speeches, but the auditors are expected to listen while they eat.

Orange-peel.—The attention of the City of London Commissioners of Sewers has been called to the dangers from the practice of throwing orange-peel upon the pavement, and they have adopted a resolution to the effect, that the Streets Committee should confer with the City Solicitor and the Police Commissioner with a view to remedy the evil. The police have no power to prevent persons throwing orange-peel upon the pavement.

From New York.—The "Southern Florence Nightingale" has just died—Mrs. Erwin, once well known in Alabama. During the Civil War she had hospitals on the heels of the Army of Tennessee, and after the war she established an asylum for the orphans of Confederate soldiers.

Hospital Accommodation in Scotland.—In Scotland, according to the "Medical Directory," the seventeen counties of Clackmannan, Fife, Haddington, Kinross, Kirkcudbright, Linlithgow, Peebles, Selkirk, Wigton, Dumbarton, Kincardine, Argyle, Bute, Caithness, Cromarty, Nairn, and Sutherland appear to have no hospital or infirmary in any of them. The only county in England without hospital or dispensary is Westmoreland; and in Wales no county is unprovided for.

Official Order to Remove a Nuisance.—An injunction has been granted to restrain the Metropolitan Railway Company from manufacturing gas at or near the Broadway Station at Hammersmith in such manner as to be a nuisance to the neighbourhood. The order is not to be drawn up for two months, to give the defendants an opportunity for the abatement of the nuisance.

University of Edinburgh.—This year the number of matriculated students is 3237. In the three previous years the numbers have been 2317, 2856, and 3172. Of the students, 50 per cent. are in the Faculty of Medicine, and of these 38 per cent. belong to Scotland, and 35.7 per cent. to England.

The Municipal Laboratory, Paris.—From the report of this institution for the month of December, of 409 samples of wine which were purchased and analysed only 79 could be described as good, 145 are said to have been "passable," while 146 are pronounced as bad, and 89 as injurious. The Laboratory does not limit itself to the mere examination of alimentary goods, but extends its researches to all matters affecting the health and safety of the public in using goods of any description. The soldering of tin boxes for preserves, the colouring of toys, and some other processes, are examined and reported upon. The comprehensive operations of this useful institution would appear to be worthy of consideration and imitation by our own Government Analytical Department.

Proposed Fever Hospital.—From the opposition raised by the Commissioners of Lunacy to the erection of a fever hospital for Maidstone near to the Barming Heath Asylum, the authorities have abandoned the site, and propose to erect the hospital elsewhere.

A "Dispensary Sunday" Collection.—At Bournemouth the Governors of the General Dispensary propose that a "dispensary" Sunday, similar in character to Hospital Sunday in large towns, should be established in the town, as a means of obtaining urgently needed funds for that institution.

"Savoury Ducks."—Over thirty persons residing at Deighton, near Huddersfield, who purchased what are denominated "savoury ducks" from a local tradesman, have been seized with illness. The sanitary and police authorities are investigating the matter, and some of the "ducks" will be analysed.

The Huddling together of Sexes: Atherstone.—Overcrowding in labourers' dwellings is rather remarkably shown at Witherley. The nuisance inspector has reported that at Witherley he found thirteen persons sleeping in one bedroom, viz., a man and his wife, four daughters from eleven to twenty-three years old, six sons varying in age from five to seventeen, and the child of one of his daughters.

Proprietary Clubs.—The Government, it is stated, will not proceed with the attempt to bring these clubs under the licensing laws.

"The King" filling up his Census Paper: Italy.—The taking of the census in Italy, has just been effected. The King, as an example, filled up a census paper in due form as to the names and ages of the members of his family, together with other particulars. He described himself as "Humbert of Savoy," and under the head of what "profession," wrote "King of Italy." The document is to be preserved in the public archives.

Seaside Resort for the Children in London Orphan Homes.—Steps are being taken at Dover for the establishment of a seaside resort for children from these institutions. A house has been secured, and will be opened shortly for their reception.

Appreciation of Medical Services.—Dr. Vincent Ambler has just received from his Excellency the Persian Minister a new year's gift in the form of an English gold chronometer, bearing an inscription expressive of esteem for Dr. Ambler personally, and of grateful acknowledgment of medical services rendered as Physician to the Persian Legation.

COMMUNICATIONS have been received from—
Messrs LIPSCOMBE AND Co., London; Dr. HEYWOOD SMITH, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Mr. MALCOLM MORRIS, London; Mr. E. L. HUSSEY, Oxford; Dr. HERMAN, London; Mr. JONATHAN HUTCHINSON, London; Dr. WILLOUGHBY, London; THE SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY OF LONDON; Dr. CREIGHTON, London; Dr. WOLFE, Glasgow; THE HONORARY SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON; Dr. ROTH, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; Dr. ALTHAUS, London; Mr. R. J. GODLEE, London; THE REGISTRAR OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON; THE SECRETARY OF THE HUNTERIAN SOCIETY, London; THE SECRETARY OF THE QUEKETT MICROSCOPICAL CLUB, London; Dr. JOHN WILSON, Glasgow; THE HOUSE-SURGEON, Royal Free Hospital; Mr. CUTHBERT JOHNSTON; THE SECRETARY OF THE SOCIETY OF TELEGRAPH ENGINEERS, London; THE SECRETARY OF THE CLINICAL SOCIETY OF LONDON; Dr. GILLESPIE, St. Thomas's Hospital, London; Dr. MOORE, Dublin; Mr. BACOT, Seaton, Devon; THE SECRETARY OF THE SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS, London; Dr. F. SEMON, London; THE HONORARY SECRETARY OF THE HARVEIAN SOCIETY, London.

BOOKS, ETC., RECEIVED—
L'Involution Uterine, par le Dr. Charles Milsom, de Cannes—Speech of Robert Fowler, M.D.—Annual Summary of Vital Statistics, etc., of the Kensington District for the Year 1881—Illustrirte Monatsschrift der Aerzlichen Polytechnik—Transactions of the Pathological Society of London—Proceedings of the British National Veterinary Congress, 1881—In the Supreme Court of the District of Columbia—Aristotle on the Parts of Animals, by W. Ogle, M.A., M.D., F.R.C.P.—Myth and Science, by Tito Vignoli.

PERIODICALS AND NEWSPAPERS RECEIVED—
Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Gazzetta degli Ospitali—La Presse Médicale—New York Medical Journal—Centralblatt für Gynäkologie—Revue des Sciences Médicales—North Carolina Medical Journal—Archives de Neurologie—Literary Microcosm—Sanitarian—Boston Journal of Chemistry—Dublin Journal of Medical Science—Revue de Chirurgie—Revue de Médecine—Canada Lancet—Anales del Circulo Medico Argentino—Journal of the British Dental Association—Gazzetta Medica Italiana—Canadian Journal of Medical Science—Liverpool Medico-Chirurgical Journal—Therapeutic Gazette—Medical News—Maryland Medical Journal.

PLASTER SPLINTS AFTER AMPUTATION OF THE LEG.—
M. Desprès observed, in a clinical lecture, that while after amputation of the thigh the stump and flaps can be very conveniently supported by a cushion, which prevents their coming in contact with the bed, this is not the case after amputation of the leg, and surgeons well know how the patients are thus inconvenienced. After trying various plans, M. Desprès has fixed upon one which is successful—viz., the application over the dressing of the bilateral plaster splints which he uses in fracture of the leg. These are secured by adhesive plaster, and are so adjusted that the inner splint reaches up to the tuberosity of the tibia, and the outer one to the head of the fibula—the exit of fluids being facilitated by a drainage-tube. The patients find the apparatus most convenient, enabling them to turn on the side when the dorsal position is wearying, while the immobilisation of the part is as complete as possible.—*Rev. Méd.*, December 31.



ORIGINAL LECTURES.

A CLINICAL LECTURE
ON THE NATURE OF WHAT IS CALLED
SCIATICA.

By JONATHAN HUTCHINSON, F.R.C.S.,

Senior Surgeon to the London Hospital ;
Professor of Surgery and Pathology to the Royal College of Surgeons.

GENTLEMEN,—We are occasionally consulted by patients who have been suddenly seized by severe pain behind the great trochanter and extending down the thigh in the course taken by the great sciatic nerve. Sometimes both sides are affected, but more usually only one. There is never any appreciable swelling of the thigh, but pressure over the nerve mentioned usually elicits an expression of severe pain. The slightest motion of the part also causes pain, and the patient turns himself in bed with the most scrupulous care. Sometimes the pain is described as shooting down the thigh, but more usually the patient will tell you that there is more or less constant pain in a line extending from a little to the inner side of the trochanter to the middle of the popliteal space—that is, along the trunk of the nerve. Sometimes the pain passes lower into the calf or down the outer side or front of the leg, but usually it stops a little above the knee. Attacks of this kind come on suddenly—often with extreme suddenness. They last an indefinite time, vary very much in degree of severity, and when they pass off usually leave the limb somewhat weakened. They never occur in children, but are met with at all periods of adult life. Although, as just said, the limb is left weakened, yet there is seldom any positive paralysis of individual muscles or loss of sensation in the skin.

Attacks of the kind which I have described are known both by the public and the profession under the name of “sciatica,” and so peculiar and constant is the position taken up by the pain, that it needs but the merest smattering of anatomy to conjecture that they must be in some way connected with the great sciatic nerve. But in what way? that is our question. At first sight it may seem that the severe pain experienced is explained at once by supposing the nerve itself to be inflamed or irritated by adjacent inflammation. Nor are observations of authors wanting which imply an adoption of this hypothesis. We are told that “the pain runs down the nerve,” and thus “educates the patient in his own anatomy.” The knowledge thus afforded is, however, not very detailed, and by no means includes the ultimate distribution of the nerve. The fact that it does not do so is well illustrated by the circumstance that an able writer, who asserts that sciatica “causes pain which follows the course of the nervous trunks and extends along their several branches,” has himself learned no more detail respecting the sciatic than to believe that “it passes vertically down the back of the thigh to the ham, and thence, under the name of posterior tibial, descends to supply the leg and foot.” We may, I think, safely infer that the pain in sciatica does not usually extend down the anterior tibial or peroneal branches. I will go further than this, and take leave to express a doubt whether it goes down any nerve at all. In the first place, it is very improbable that a nerve-tube can conduct impressions in the reverse direction of what is usual; and, as we all know, sensations pass from below towards the head, and do not run down from it. In the next place, if the pain in sciatica and similar so-called neuralgias were really in the nerves themselves, or had anything to do with them as nerves, it would constitute what is known as a referred pain, that is, the sensation would be located by the patient’s feelings in the peripheral distribution of the filaments concerned. This law is probably invariable, and we have no reason whatever for believing that nerve-tubules can originate impressions of pain which shall be referred to themselves and shall dart along their course. It is like try-

ing to send a telegraphic message by fingering the wires. If you cut the telegraph wire midway between York and London, affix a battery, and send a message northwards, the receiving clerk will, of course, unless otherwise informed, take for granted that it comes as usual from London. It is just so with nerve-trunks; and if I were to put a spicule of glass in the middle of the sciatic nerve, I should produce, not shoots of agony along the course of its trunk, but pain in some part of the skin of the leg and spasm of certain muscles. Now, in sciatica we have, as a rule, neither cutaneous tenderness nor muscular spasms, but simply pain over the course of the main trunk, and we are therefore compelled to believe that the chief symptoms have nothing whatever to do with the special nerve functions of the part concerned. I am careful to say “as a rule,” and to specify the “chief” symptoms, for there does appear reason to suspect in some cases that a certain share of the suffering, and of its consequences, may be due to interference with the nerve-tubules, sometimes portions of skin do become tender, and certain muscles are affected by cramp, and, as we have seen, some weakness of the limb is a common consequence. My assertion applies to the most prominent symptom—the intense pain over the nerve—and for this, I assert, we must seek an explanation apart from its structure and functions as nerve. There is nothing in the least new in the belief that sciatica depends upon inflammation of the fibrous sheath of the nerve rather than of the nerve itself; it is indeed the doctrine of most modern authorities. It has, however, been too much taken for granted that although the sheath may be primarily involved, yet the symptoms are mainly due to the nerve; and I suspect that a hint that the symptoms might probably be just the same in all main points if the sheath enclosed so much straw instead of nerve-tubes, would strike most as absurd. This assertion would, of course, involve the belief that the pain is due to the inflamed sheath itself, and is of the same character as the pain in the fascia which causes lumbago, or the pain in ligaments, etc., which attends rheumatic arthritis. It is well known that in these comparatively nerveless structures the pain is as great as it is in sciatica itself.

In order to see whether it is likely that the symptoms may be thus explained, we must speculate a little as to what would probably happen in rheumatic inflammation of a nerve-sheath.

We must not forget that the sheaths of nerves and the fibrous septa which pass between the bundles, and probably the neurilemma itself, are all supplied by their own nerve-twigs, and are capable of pain. Let anyone try the experiment of making pressure on his ulnar nerve. He will experience almost immediately an exceedingly disagreeable kind of ache at the immediate seat of pressure, and this aching in the nerve-trunk will continue as long as the pressure is continued, or even much longer. It will not be attended by any darting, nor will it change its place or pass either upwards or downwards. You will not become conscious of the position of the trunk of the ulnar nerve either in the forearm or upper arm; you will simply feel pain behind the condyle, and nowhere else. This pain, I think, may in all probability be attributed to the nerves of the sheath and neurilemma, and is analogous to that which might be caused by squeezing the testicle or the eyeball. If in your experiment you continue the pressure for a little time, in addition to the local ache just mentioned, other phenomena will ensue. You will begin to feel “pins and needles” in the skin of the little finger, ulnar half of ring-finger, ulnar side of hand, and the ball of the thumb. Sometimes an ache deep-seated in the palm is experienced, and now and then some of the muscles supplied by the ulnar nerve will twitch. The muscular twitchings are the result of direct irritation to the motor fibrils, and the altered sensations belong to what I have already mentioned as referred pains. From the ulnar nerve behind the elbow the afferent tubules carry up the irritation caused by finger-pressure to the brain; and the latter not being able to assign their place of origin, takes for granted that they come, as most sensations do, from the ultimate distribution of the nerve. It is possible that the precise character of the sensation “pins and needles” is due to the occurrence of a succession of discharges of nerve force where the continuity of the nerve tubules has been interrupted by squeezing, just as happens when the connecting-wire of a battery is cut and the ends are held slightly apart. I have selected the ulnar nerve as

an example because it is the most accessible one, but precisely similar symptoms may be produced in any other. If on a cold night out duck-shooting you thrust your right hand between the buttons of your great-coat and let the guard of the gun rest on your forearm, ten to one but the radial nerve will be pressed upon, and you will learn most accurately its cutaneous distribution by the tingling produced in its territory. Or, by going to sleep with one buttock resting on the edge of the chair you may easily realise the effects of pressure on the sciatic trunk itself, and may wake with the whole leg numbed, tingling, and aching. An impression that the leg is enormously increased in size always occurs when the pressure has been long continued. It may be five or ten minutes before you are able to use the limb, and before you become conscious of its real size and form. Let me insist that the pain and discomfort are perceived in the skin, and not in the nerve-trunks, with the single exception of the part pressed upon.

I am quite aware, in teaching that nerve-tubules never become themselves painful, and that under no circumstances does a patient become conscious of the precise direction in which his nerves run, that I differ from most authorities. I assure you that I do so with much diffidence, and that my desire is rather to state the subject clearly for further debate than to pronounce a dogmatic opinion. Nothing is more certain than that many pains lancinate, stab, and shoot; and nothing is more natural than that it should have been assumed that shoots of pain pass along nerve-trunks. To determine whether they really do so requires critical investigation. I have not unfrequently been told by medical friends that such a patient could map out his nerves as accurately as any anatomist. In investigating such cases I have, however, always been disappointed. Many a time have I requested the subjects of neuralgic or shooting pains to be kind enough to indicate precisely the course taken by the pain, and never yet have I found that it was referred with any degree of accuracy to a nerve-trunk. In saying this I mean that it did not follow a nerve-trunk for any great length, as we would expect it to do if really seated in a nerve-tubule. If in the latter structure, a pain ought to dart through its whole length from periphery to centre. It is inexplicable that it should be restricted to a few inches. The pain in frontal tic is perhaps as good a test of this as we can find, and most of us have probably experienced it. I can speak feelingly of the terrible shoots which often attend it, but that those shoots pass in the course of the supra-orbital nerve I must be allowed to doubt. You will understand that I by no means doubt that nerve-trunks may become painful and tender, but it is their sheath which is the seat of the pain, not their tubules. The sheath may easily be tender for several inches, and then the patient will be cognisant to that extent of the position of his nerve. Inflammation of the sheath may also, as in the case of experimental pressure, cause such damage to the tubules as to produce peripheral sensations, but still there will be no consciousness of the nerve-trunk beyond the part actually involved, any more than there is when you compress the ulnar nerve at the elbow. The latest German authority, Professor Niemeyer, thoroughly adopts the general belief that pain can be perceived in nerve-tubules. He distinguishes the pain of neuralgia into two forms—one continuous, local, increased by pressure, annoying, but not very severe; the other recurring, the paroxysms spreading along the course of the nerve, and terrible and almost unbearable in its severity. Of the real difference between these two forms there can be no doubt, but the question is as to the nature of the latter. Is it not, after all, only an exaggeration of the former; and do we not find all degrees, from the faintest ache to the most terrible lunge? Niemeyer also adopts the further division of the paroxysmal neuralgic pains into descending and ascending, and believes that the one passes upwards along the course of a nerve, the other downwards. The latter, by the way, he holds to be much the more common—a statement which, to my mind, goes far to confute the theory, since it is most difficult to believe that the mind could become conscious of a sensation which passes away from the sensorium.

It will only confuse our notions of disease and its causes if we class as "sciatica" all cases in which the nerves of the hip become painful. Pain may be caused in branches of the sacral plexus by many different causes, some of them common to all nerves, and accidental when they occur to

these; others peculiar to the anatomical position of the plexus in question. Amongst the former may be mentioned the pressure of cancerous and other tumours of enlarged glands or of abscesses in connexion with disease of the vertebræ. Amongst those more special to the part we have the pressure of the child's head during labour, and that of indurated fæces in the lower bowel.

Now, I do not believe that any of the influences mentioned ever produce symptoms which ought to be confused with those of true sciatica. If the child's head during labour presses long and injuriously on the sacral plexus, it causes not severe pain, limited to the trunk of the great sciatic nerve, but general numbness of the whole limb, tingling in the skin, and aching. Usually the pain felt is worse in the leg than in the hip, and nowhere is there any tenderness. The same remarks apply to any case of pressure by large tumours on the plexus itself. If there be cancerous disease of the vertebræ, or any similar condition, then it is very improbable that the whole plexus would be involved, and the symptoms produced would most likely be those of violent neuralgia in some one branch. The pain would be referred to two parts—the seat of the disease which caused it, and the peripheral distribution of the nerve involved; it would not be located in the nerve-trunk. Now, sciatica, as we have seen, is pain in a nerve-trunk or near it—not at its origin, nor yet at its distribution.

Niemeyer suggests the following easy but rather doubtful explanation of the cause of sciatica:—"The majority of cases of sciatica are of rheumatic origin, as they result from exposure to cold of the skin covering the sciatic nerve, as occurs particularly in windy privies. It is not at all astonishing that among the cutaneous nerves the trigeminus and the sciatic should be affected most frequently, the former being all day exposed to the danger of catching cold, and the latter for a short time once or twice daily."

Here, gentlemen, let me say to you that a huge source of fallacy underlies all our observations as to "sciatica," and that is, the almost impossibility of making a diagnosis. *The various arthritic affections of the hip-joint may all simulate sciatica.* I am sure that gout in the hip ranks often as "acute sciatica." Its attacks are just as sudden; the pain is as acute, is referred to the same spot, and is as liable to be referred to more distant ones. The inability to permit movement is even more marked. Attacks of gout in the hip are very variable in acuteness, severity, and duration; they are common, and may occur at any age. There is nothing in the history or constitutional state of the patient to help us in the diagnosis, for sciatica is itself usually a disease of the arthritic class, and often distinctly gouty. If gout does duty not unfrequently for "acute sciatica," senile rheumatic arthritis is, I am certain, the real malady in nine-tenths of the so-called chronic cases. In truth, so far does this source of error go, that I have often been tempted to think that there is no such disease as sciatica. In case after case in which this diagnosis had been given, I have felt certain that really the hip-joint was the seat of the disease. Probably, however, there are a few cases in which we may apply the term under discussion correctly, but if you care to be accurate, you must always be on your guard. Fortunately, the treatment does not differ in any important features. I will now, by way of illustration, read to you the notes of two or three cases in which the suggestion that the nerve was affected seemed as probable as it does in any. If, however, you carefully attend to the narrative of the symptoms, I think you will feel, as I do, much doubt whether or not this diagnosis was absolutely established.

I attended some years a medical friend who passed through a very severe attack of "sciatica," which kept him to his bed for weeks. Tea was the remedy which gave him most relief. He took it at all hours, night and day, and often succeeded in getting to sleep after it, when he could not otherwise. The pain was such that he could not bear the limb to be moved, and I well remember how much he complained of referred pain in the lower part of the fibular region. At length the pain left him, and he recovered perfectly, without any weakness in the limb or stiffness in his hip. The attack I describe occurred ten years ago, and I believe that he has never since had any return—a fact which is against the diagnosis of joint-disease. Still, I cannot wholly put aside my doubts, and I repeat, I know of no pathognomonic symptom for differential diagnosis.

*Investigation of Symptoms in a Case of Subacute Sciatica—
No Evidence of Pain along the Course of the Nerve.*

J. G. is of fair complexion and sanguine temperament. He is twenty-seven years of age, and has usually enjoyed excellent health. His parents are both living, and neither of them is arthritic excepting that his father suffers at the present time from lumbago. An elder brother of his was six weeks in the London Hospital with "rheumatic fever."

A month ago, G. was one evening (November, and chilly weather) walking home from his work, when quite suddenly he felt sharp pain behind the left hip. It was very severe, and after limping part of the way further, he was obliged to get a cab. He managed to keep at his work for the next fortnight, though lame and unable to do much. At length he was obliged to give up.

Thus we have to do with a subacute first attack of "sciatica," and the following notes refer to a date one month from its onset.

December 3.—He refers the pain to a part of the thigh a little outside the tuberosity of the ischium, and says that it is deep in the flesh. He can bear the firmest pressure without flinching, and tells me that at all stages of the complaint he found the same result. He complains of pain also in the calf of the leg, but has none whatever in the popliteal space or front of the leg. He walks with a limp. His nights have been bad. He usually sleeps two or three hours, and then wakes with the pain in his buttock, which after a while passes upwards across the loins, then into his back and shoulders, and keeps him awake the rest of the night. As the day goes on he gets better, and in the evening he feels comfortable. He has not found tea relieve the pain, but he thinks he has usually felt more comfortable after a glass of beer. At the time the attack began his bowels were freely open; he was, in fact, liable to relaxation. Since then he has had regular action. His tongue is a little furred, and his appetite defective. He finds the pain made better by exercise. Ironing the back has relieved him somewhat. He has not had any regular medical treatment. In the tarsus of the opposite foot he has had some articular pain.

Long-continued Pain in certain parts of the Right Hip and Lower Extremity (Sciatica), not following the Course of any Nerve—Slight but Distinct Evidences of Rheumatic Diathesis.

Robert H., a thin, dark-complexioned man, aged fifty-one, has been the subject of "sciatica" for more than two years. He has never been confined to bed, but has been almost all the time disabled from work. He never had rheumatism, nor does he believe that rheumatic complaints are in his family. In both knees, however, distinct though small lumps can be felt on the femoral condyles. His "sciatica" began suddenly in summer weather. He describes the pain as located chiefly in the upper part of the buttock, a little below the middle of the crest of the ilium (far above the sciatic trunk), thence it passes downwards and outwards to the great trochanter, which latter, with the upper part of the femur, appears to be the seat of aching. Downwards, the pain passes along the outer side of the thigh, then to the front of the leg and its outer side, and finally fixes in the instep. He lays great stress on the pain in the instep. The pain is liable to aggravations, but is never wholly absent. He is a rope-maker, and can manage the walking backwards, but not forwards. He often sleeps very badly. He has not found anything to relieve it. Urine usually clear, but sometimes thick. He has been accustomed to take a regular and liberal allowance of beer, but has not been intemperate. He does not notice much difference with changes of weather. He considers that the pain is gradually beginning in the other haunch. As yet it is restricted to the upper part of the ilium.

In this case, it is quite clear that the sciatic trunk is not specially the seat of pain. Probably the painful tissue is fascia and periosteum. The pain is not much increased by pressure, but it gets worse on standing and in walking.

In another case, which occurred in a very observant gentleman, I carefully studied the pain. He told me that the pain was fixed behind the great trochanter, and always began there. It did not pass down the back of the thigh, but would wind forward to the front of the thigh. It did not usually much affect the leg, but was often severe in the heel. I thought this case sciatica, but clearly there is nothing conclusive. Heel-pain is common in gout.

Let me now briefly recapitulate the principal conclusions to which I have endeavoured to direct your attention. I believe, in the first place, that in nineteen cases out of twenty in which the diagnosis of "sciatica" is suggested there is no affection of the sciatic nerve whatever. They are simply cases of arthritic disease of the hip in one or other of its various forms—acute gout, chronic gout, rheumatic gout, subacute rheumatism, or chronic senile rheumatism. Both by the public and the profession these cases are constantly called "sciatica." Our workhouse infirmaries are full of chronic cases under that name, and I speak advisedly when I say that I feel sure that they are almost all examples of *morbus coxae senilis*. Of the cases of "sciatica" which are not hip-joint rheumatism, some are probably affections of the fascia or periosteum near to the hip; a minority are possibly affections of the sciatic nerve itself. In these latter it is the sheath of the nerve which becomes painful. The pain may be darting or may radiate, but it does not pass down the nerve-tubules or in any way make the patient conscious of their course. The diagnosis of true sciatica is to be based upon the discovery of tenderness restricted to the trunk of the nerve, and involving a considerable part of its course. Examples of this are decidedly rare, and their recognition without risk of error is a matter of great difficulty.

CLINICAL LECTURES

ON DISEASES OF THE ABDOMEN.

By FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P.,

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LECTURE VIII.

ON THE PHYSICAL EXAMINATION OF THE ABDOMEN.

I HAVE already insisted upon the essential value of physical examination in the diagnosis of abdominal complaints, and in entering upon the discussion of this subject, I must once more emphatically urge upon you to be in all cases alive to its importance, and ready to practise it whenever this method of investigation seems indicated. Your own judgment and discretion must guide you as to when physical examination is needed, and also as to the extent to which it must be carried out. I am sure it is not practised so frequently as it ought to be; and this chiefly arises, not from any difficulty on the part of the patient, but from a habit of careless and superficial clinical investigation, want of thought, or a disinclination to take much trouble about a case. In women an objection to be examined has sometimes to be overcome; and you must remember that this may be so firmly rooted, that such patients actually conceal their knowledge of the existence of an enlargement or tumour. Therefore you must be on your guard, and if there is any obscurity in a case, or if you have reason to suspect any abnormal physical condition, an examination, adequate to the circumstances, must be insisted upon. It should be conducted in such cases with proper delicacy, and it may be quite unnecessary absolutely to uncover the abdomen, or only a portion of its surface may be exposed at a time. In males and children you need not be so particular. In some instances, especially those of acute diseases, the examination should be carried out in the most gentle manner.

As illustrating the advantages of examining the abdomen, in the first place this may be necessary to detect some condition which demands immediate interference in the way of treatment, such as a hernia, a faecal accumulation, or a distended bladder. Again, it is remarkable how often an apparently obscure and difficult case is easily cleared up in this way. Further, you will recollect that morbid conditions are not uncommonly discovered in this manner, which were previously not suspected. On the other hand, this physical examination is not only of value to determine what is present, but also to prove that there is nothing at all, or, at any rate, nothing of much consequence; and thus the minds of patients are relieved when they imagine that they have tumours, dropsy, and other conditions; or when there is some comparatively unimportant complaint, such as dis-

placement of an organ. Occasionally this mode of investigation only enables us to ascertain that something unusual is present in the abdomen, but we cannot clearly make out what it is. Even this, however, is sufficient to put us on our guard, so as to prepare us to give due attention to the case, and to watch its further progress.

This leads me to notice the further value of repeated examination of the abdomen in not a few instances. You must not think that because you have examined once, you have done all that is needed. There are cases in which you may be called upon to examine again and again before you can find out what is wrong, and even at very short intervals. In acute cases a few hours may clear up much obscurity; and even in what might be termed chronic cases, it is remarkable sometimes how an examination at one time may reveal what was not discovered at another time, and how rapidly the physical signs of certain diseases become developed. I have known an obscure case of cancer of the liver become perfectly evident within a very few days. And, further, repeated examination is often required to determine the progress of morbid conditions, and to ascertain the changes which they undergo.

But in order that your physical examination of the abdomen shall be of any assistance in diagnosis, it is imperative that you should understand the subject at least moderately well, and that you should acquire adequate skill to enable you to carry it out efficiently. If you have only vague general notions as to how to examine the abdomen, and of the conditions met with in this part, and their signs, your investigation will probably be of little or no help to you, and you will always be in danger of making mistakes, and thus doing more harm than good. As a matter of fact, in the great majority of cases proper examination of the abdomen will disclose any existing abnormal physical condition which is capable of being thus discovered, and will also enable you to determine all important facts about it. But considerable practice is needed for this, and I would strongly recommend you to take every opportunity of examining for yourselves cases in which abnormal physical signs are present in connexion with the abdomen.

Now, it is highly important that you should learn the subject theoretically in a systematic manner, and then you will be in a position to benefit by practical experience and study. I think that you will attain this object most easily by attending to the following points in succession:—

I.—The ordinary GENERAL EXAMINATION of the abdomen, as applied to its surface and through its anterior walls.

II.—SPECIAL MODES of, and AIDS to, examination in doubtful cases.

III.—SPECIAL MODES of examining particular ORGANS.

IV.—The abnormal PHYSICAL CONDITIONS in the abdomen which physical examination reveals; and the SIGNS of those which usually occur.

V.—The abnormal PHYSICAL CONDITIONS presented by individual ORGANS, and their chief SIGNS.

I propose now to consider the points mentioned under the first four heads, but to defer the last until we come to deal with individual organs.

I.—GENERAL EXAMINATION OF THE ABDOMEN.

I do not intend to enter into this subject fully and in detail, as you can obtain most of the necessary information in text-books and works on clinical medicine, and are also specially instructed in your clinical classes. I will therefore content myself with merely drawing your attention to certain important practical matters. You ought to be quite familiar with the course to be pursued in the ordinary examination of the abdomen; the methods to be employed, and what they severally teach; and the points and conditions to be noted. You will thus be prepared to carry out the examination quickly, and at the same time systematically and efficiently, in any particular case. You should also make yourselves thoroughly acquainted with the physical signs presented by a normal abdomen, remembering that they vary within well-known limits in different individuals, according to age, general condition, etc. In this connexion you should learn how far each organ can be made out in the abdomen; and the feelings to palpation, and other signs which it presents in its healthy state. Such knowledge can be easily acquired, and ought to give you no trouble.

The methods adopted in the examination of the abdomen are in the main similar to those employed in the case of the

chest, but their relative value is very different. Palpation and percussion are by far the most useful modes of examining the abdomen; and one great advantage which this part of the body possesses over the chest is, that the conditions within its cavity can often be felt easily through its walls, and sometimes even seen. In mentioning palpation, I wish to impress upon you very strongly the great help which *manipulation* affords in the investigation of abdominal conditions; that is, you must not be content with merely placing a hand on the surface, but must accustom yourselves to use both hands, and to manipulate with them in various ways in different cases. Moreover, palpation and percussion can frequently be employed with marked advantage in combination. Both these methods require considerable practice and education of the senses of touch and hearing, so as to make you able to appreciate the tactile feelings and the sounds which are thus brought out. You must be prepared, while usually pursuing a definite course of examination, to modify this more or less in particular instances, should occasion require; and bear in mind that the methods employed may be varied, in certain cases, with advantage. You will learn from the sources I have already mentioned the best posture for the patient to adopt for examination of the abdomen; but you need not adhere to this too strictly, and your own judgment may suggest to you variations in posture suitable for some cases. Moreover, as I shall explain more particularly hereafter, signs of essential significance are not uncommonly brought out by changing the position of the patient, when certain morbid conditions are present.

(To be continued.)

THE SANITARY CONDITION OF THE FRENCH AND GERMAN ARMIES.—According to the *Militär Wochenblatt*, on comparing the number of patients in the military hospitals and infirmaries, it is found to be 5·71 per 1000 in Germany, and 5·19 only in France; but if the comparison is made for the *malades à la chambre*, the proportion is entirely reversed,—for while in the French army there is the enormous proportion of 20·16 per 1000, in Germany it is only 5·89, so that, taking the entire number of patients, they are 25·47 per 1000 for France, and only 11·60 for Germany. The duration of treatment of serious diseases (in hospitals and infirmaries) is 28·8 days in France and 22 in Germany, at the hospitals; and 11·6 days for France and 8·7 for Germany, at the infirmaries. For *malades à la chambre* the proportion is reversed, being only 3 days in France and 5 in Germany: so that, taken altogether, the mean time during which each man would be exempted from service during a year is 17 days in France and 13 in Germany. The mortality in the French army is double that of the German, for in a total of 440,514 individuals (including officers), the former lost 4009, or 9·09 per 1000; while the latter, in a force of 328,298 (without the officers), only lost 1581, or 4·83 per 1000. In the latter amount are comprised 159 of the corps of invalids, which are not found in the French statistics. If deduction were made from the totals of men dying from suicide or accident, the deaths would descend to 8·54 per 1000 in France and to 3·70 per 1000 in Germany. Among the deaths from particular diseases, 1037 in the French army from small-pox, and not a single death from this cause in the German army, testify to the utility of compulsory revaccination. Of typhoid fever there were 3780 cases in the French army, or 8·6 per 1000, and 1926, or 5·8, in the German. Of the patients treated for the disease, 422, or 35 per 100, died in France, and 190, or 8·9 per 100, in Germany. In Paris the mortality from typhoid was 31 per cent.—*Union Méd.*, December 31, 1881.

THE ELECTRIC LIGHT AND THE EYES.—In a paper read by Prof. Javal before the Society of Public Medicine (*Annales d'Hygiène*, December), it is stated that the electric light is perfectly harmless to the eye. The greater number of cases of asthenopia are met with in persons who work with an insufficient amount of light; and the electric light will, in its near approaching generalisation, do great service by raising the standard of illumination now prevalent. What is required is a considerable increase of domestic lighting, the effect of which will certainly preserve from myopia and certain other affections numerous eyes, the visual acuity of which is imperfect, and which suffer considerably when forced to work in the semi-obscurity of our modern lamps.

ORIGINAL COMMUNICATIONS.

ON THE VALUE AND USE OF OPIUM.

By C. R. FRANCIS, M.B., Surgeon-General (Retired).

It is somewhat remarkable that, whilst so much is being urged by a portion of the public against the use of opium, there should apparently be such a dearth of information amongst the public generally as to its, so to speak, dietetic value in moderate doses. The abuse of opium is as much to be deprecated as is that of alcohol; and it was surely with reference to this *abuse* that the author of the "History of the Taeping Rebellion," Lin Le, one of the strongest advocates of the discontinuance of the opium traffic, wrote, "When the smoker (of opium) has pawned everything in his possession, he will pawn his wife and sell his daughters—such are the inevitable consequences." To what lengths, alas! will not the victim of the *drink crave* also go? But, as with alcohol, so with opium, there is usually a minimum(a) quantity of each that can be taken through a long life with perfect impunity—nay, in certain special cases, with benefit to the general health. There is, however, this difference, that, in the cases in which they are severally indicated, alcohol may, I believe, be more easily done without than may opium. The former may be used medicinally to help, for a time, a jaded stomach; the moderate daily use of the latter is often of inestimable value in soothing an exceptionally irritable nervous system, or, in certain painful disorders, in making life bearable. Alcohol is also taken to deaden pain; but this result, if attained, is very temporary, often necessitating other successive doses, which may culminate in intoxication and coma, developing, possibly, in the end, if the remedy be too frequently repeated, a craving for drink, without in the slightest degree benefiting the pain for which it was given, besides shattering the nerves and otherwise injuring the constitution. A single suitable dose of opium, on the other hand, tranquillises, where it agrees, almost immediately; and the effect remains for eight or ten hours. True it is that the *opium crave* may in time be developed, but, so far from acting prejudicially, its daily use in moderation may fulfil an important indication. The therapeutical action of each, though theoretically somewhat similar, is practically very different. Whilst alcohol might be banished from the globe (I do not say that I advocate it) without abridging a day of man's life, I would not venture to say the same of opium. Alcohol, for which, when medicinally needed, there are many substitutes even better than it, can never take the place of opium, for which there are at present, considering its various useful properties, none. As has been well observed, "It may be undignified for an Imperial Government to add to its revenue by the sale of a drug, but there can be nothing criminal in cultivating or encouraging the cultivation of one of the most valuable natural products of the earth, or the manufacture of one of the best gifts of nature to the sons of toil, of sorrow, and of pain."

Having had a somewhat considerable and lengthened experience of the therapeutic, and what may be called the dietetic, properties of opium—an experience which has led me to form an opinion of its value differing in one or two points from that usually received,—I venture to offer the following remarks:—It is a generally accepted doctrine that opium acts, physiologically, in three ways: 1. That it produces various degrees of insensibility, allaying spasm and diminishing pain; 2. That it promotes sleep; 3. That it is an astringent, checking hæmorrhage and arresting secretion, except that from the skin, with regard to which it is, as usually understood, a diaphoretic. Opium is also rightly credited with being a stimulant and, in a sense, an aphrodisiac.

Taken in certain doses, the beneficial effects of the drug, in suitable cases, are universally admitted. If those doses be exceeded, it in most cases, and in various known ways, acts detrimentally. Now, it is no secret that opium is consumed by all classes of the community and in all parts of the world in so-called immoderate doses, and that such

persons (many of them) are exceedingly well, and are as likely to live to a good old age as they who consume a daily prescribed allowance of alcohol. Let me here say that I do not recommend the use of either, except in special cases of disease.

I proceed to record the results of my observations of the effects of opium when taken in what I have termed dietetic doses.

Vascular System.—If taken for the first time, a *small quantity*, even, of opium quickens the pulse, more or less, according to the amount. Large doses produce effects that are not uniform. When hæmorrhage has caused quickening (of the pulse) with great loss of power, opium in full doses is invaluable. But, where the hæmorrhage is from a muscular cavity like the uterus, the exhibition of a drug that diminishes muscular contractility requires great judgment. A lady in India, whom I saw in consultation, the mother of seven children, once very nearly flooded to death, after her confinement with the eighth, owing, as I believe, to the administration of large doses of brandy and laudanum during the hæmorrhage. Vomiting happily set in, and the uterus contracted immediately. Where the system has become habituated to a daily allowance of the drug—where the individual has learnt to take only what is adequate and no more—the effect upon the pulse is inappreciable. There is no doubt, however, that, even in these doses, it is warming to the system, and enables it, for the time, better to resist cold.

Cerebro-Spinal System.—Even in the most moderate doses, opium, where it agrees, usually, but not always, diffuses an agreeable sensation through the brain, which passes off after a short time. If a fresh dose be taken before the effects of that which preceded it have passed off, the same sensation may recur, but there is no *obvious* result.

No one would suppose that the so-called opium-eater was under the influence of opium. He eats food with appetite; takes his usual exercise, often severe; if the first feeling of drowsiness be resisted, his faculties become more clear; and, in short, he goes through life like many other healthy persons. One of the most active servants I ever had in India was a moderate opium-eater. That sensibility, however, has been diminished is seen when the opium is withdrawn; or if the interval between the doses be prolonged. Then, the existence of his stomach is sometimes forced, as it were, upon the individual's notice, the process of digestion, as De Quincey suggests, being *felt*; and the general restlessness, bodily and mental, is intolerable. Where opium altogether disagrees, headache, nausea, thirst, feverishness sometimes, disagreeable reveries, and a feeling of malaise, are the prominent symptoms. There is no apparent diminution of susceptibility of ordinary impressions. The senses are all as keen as ever. I have thought sometimes that the sense of *smell* becomes a little blunted. There is one symptom in the opium-eater that cannot escape the eye of the physician—viz., the smallness of the pupil, by which, indeed, the former may always be recognised.

Respiratory System.—Though in excessive doses, owing to diminished contractility of muscular fibre, respiration be also diminished, leading to imperfect arterialisation of the blood, this is not so in the opium-eater; and the comparative pallor—comparative with reference to his previous appearance—which so frequently marks the aspect of those habituated to opium is not due to this cause.

Digestive System.—Opium undoubtedly diminishes at first the secretions from the entire alimentary tract, causing dryness of the mouth and throat, and exciting thirst. But this soon passes off; and the opium-eater after a time, so far from feeling *undue* thirst, feels *less*. A certain dryness of the fauces is occasionally experienced, but this readily yields to an acidulated lozenge. De Quincey has stated—and I can, to a certain extent, endorse his statement—that the opium-eater does not care for wine or other alcoholic beverages. The disinclination probably applies more especially to those who, possessing highly sensitive nervous constitutions, find an agreeable stimulus in alcohol, to which, however, they are too apt, in time, to become slaves. Such discover that opium suits them far better; and the taste for alcohol then ceases. They find that, whilst alcohol "robs a man of his self-possession . . . and disorders the mental faculties, opium harmonises the latter, and sustains and reinforces the former." Should the dietetic quantity be exceeded, various derangements of the digestive system ensue. Opium

(a) This minimum quantity may, in either case, be really a *large* quantity, dependent upon tolerant idiosyncrasy; but the term in this paper is intended to mean, literally, a small dose.

has a remarkable staying effect upon hunger. The Tartar couriers, who travel immense distances, take opium pills to support them on their journeys. So do the nomadic tribes of the steppes in Central Asia, the wanderers on the Khirgez slopes, and the foot and camel Kossids of the West of India. Turks, Albanians, Greeks, Malays, Chinese, the inhabitants of California, and of certain districts in India, especially Rajpootana, daily consume a (to them) dietetic quantity of opium, and yet do not become prematurely old or decrepit, any more than they who indulge in a specified daily allowance of alcohol. In times of famine, opium, when obtainable, is of special value. What tea is to the poorer classes in our own land, in diminishing the waste of tissue, is represented by opium in the case of those, in opium-growing countries, who are compelled to remain for lengthened periods without food. An *employé* in the Indian Service once said to me, "I can eat five meals a day, or go all day without eating anything." He was a hookah smoker, and I presume that tobacco in his case acted as opium would in that of others who take it. I have observed that moderate smokers have, *cæteris paribus*, excellent appetites, whilst, at the same time, they can endure a prolonged fast better than those who do not smoke at all.

Liver.—The effect of even dietetic doses of opium upon the liver is usually uniform. As the individual becomes accustomed to the opium, the evacuations, at first light, assume very nearly their normal colour. As a rule, the requisite quantity of bile is not secreted, in consequence of which the skin inclines to a yellowish tinge: and it is to this fact that the characteristic pallor of the face is in the main due; and yet the health is apparently perfect.

Urinary System.—In diabetes, opium certainly checks the secretion of urine; but does it do so by acting on the kidneys? Diabetes is probably a disorder of the nervous system. If the part of the sympathetic from whence branches are distributed to the liver, or the floor of the fourth ventricle, or certain portions of the spinal cord, be irritated, diabetes may be the result. Or, referring to its power of diminishing the contractility of muscular fibre, opium may induce vaso-motor paralysis of the vessels of the chylopoietic viscera, in consequence of which the blood will reach the liver without being dearterialised. Pavy has injected arterial blood into the portal vein, and produced glycosuria. It may, I think, reasonably be presumed that, by tranquillising that condition of the nervous system which causes derangement of the glycogenic functions of the liver, opium is useful in diabetes. In my own experience, opium does not in the least check the secretion of urine. In experiments with the drug upon animals, urine has been found in the ureters and bladder, from whence it has not been voided owing to diminished contractility of their muscular fibres. In a case to be presently referred to, these organs (the kidneys) acted, if possible, more freely than they did before the habit of taking opium was acquired.

Cutaneous System.—Generally speaking, opium promotes diaphoresis, but not when a person has become habituated to its use: then it seems to have the opposite effect. In a case in which I have particularly noticed this, perspiration—not always, but often—breaks out as the influence of the drug is passing off; and it is sometimes so excessive that the individual, on those occasions, takes a dose of the opium to check it. And he finds by experience that this arresting effect of the drug can always be depended upon.

Sexual System.—I venture to think that the aphrodisiac properties of opium may be doubted. It is supposed that Eastern nations take it for this purpose, the real fact being, not that it creates or increases the venereal appetite, but that it intensifies the mere animal gratification arising from the sexual *congrès*. Where opium agrees, the soothing feeling that is diffused through the body is described as singularly pleasurable. Under its influence the gratification arising from almost any act becomes greater: the intellectual soar into the seventh heaven of mental enjoyment; the sexual descend into the depths of bestiality. When the hydrate of chloral was first introduced into practice as an hypnotic, an Indian nobleman, who was in the habit of taking opium to increase the pleasure of the sexual act, applied to the Civil Surgeon for a soporific dose. It subsequently appeared that the applicant wished to test the so-called aphrodisiac properties of the chloral, for he complained that for such a purpose it was quite unsuited! The case of this voluptuary is but one of many in the East. He had taken opium for a quarter of a

century, he was fifty years of age, and his sexual vigour was unimpaired.

On first commencing opium, sexual efficiency with many is decreased, and with it the power of retaining the seminal secretion. The act is, therefore, soon over. If the daily quantity be augmented, sexual vigour steadily diminishes; and finally, if this augmentation be persisted in, may be extinguished altogether. If, however, the dietetic quantity only be taken, the venereal appetite may return to its former extent.

The following case embodies, to a great extent, the symptoms here described, and is perhaps worthy of being placed on record. Mr. A., whom I knew very well as a boy, and with whom I have from time to time renewed our former friendship during my several furloughs to England, has for some twelve years been an habitual consumer of opium, and seems as if, now in the sixth decade of his life, he were in better general health than he was five-and-twenty years ago. His secretions are natural; the bowels, as a rule, are relieved every morning, the dejecta being almost of the proper colour; the appetite is good, and the digestion thorough; and the procreative power, always active, is in the *status quo ante*. About thirty years ago, Mr. A.'s brain was in a very irritable state: as the result of overwork, it fell into the condition about which physicians are often consulted by newspaper reporters and others, whose cerebral powers are for many consecutive hours strained to the utmost. The prominent symptoms were a sense of dulness in the brain, with considerable mental confusion and inability to reason. Mr. A. had thus suffered, though in a minor degree, when a student at college. With a comparatively inferior mental development, he always had a great greed for knowledge, and studied too many subjects at once. On complaining to a non-medical friend about the state of his head (a state, be it observed, that was absent when he awoke in the morning, and for the first two or three hours of the day—showing the benefit of rest), his friend suggested mesmerism or tobacco-smoking. Mr. A. adopted neither of these suggestions; but a few years later took Locock's wafers (which contain morphia) for protracted chronic bronchitis. The cough, which had been very irritating and incessant, disappeared as if by magic; but the habit of taking the wafers continued. Yielding to the popular prejudice against opium-eating, Mr. A. has repeatedly endeavoured to break it off (the bimeconate of morphia in solution had been substituted for the wafers). Doubtless he would succeed in time, as others have: but, *cui bono*? He enjoys excellent health, is able to do a good day's work (mental as well as physical), and is entirely free from a variety of minor troubles having a nervous origin which used to annoy him before he began the opium. Were Mr. A. a young man, it would certainly be desirable, *cæteris paribus*, to give up the drug, upon the principle that all artificial aids, in maintaining what might be termed a factitious kind of health, are objectionable; but I very much doubt the wisdom of giving it up now. Moreover, the quantity taken does not exceed from three to four drachms of the solution of bimeconate of morphia in the twenty-four hours, half being taken on rising for the day, and the remainder from eight to ten hours later, when the effects of the morning dose are beginning to wear off. Mr. A. took much more than this at one time, but succeeded, in the effort to give it up altogether, in reducing the quantity to that just mentioned. If he takes more *now*, his head becomes confused and he is otherwise ill. I may add here that this particular preparation of morphia (the bimeconate)—thought so highly of by Dr. Roots and others—and the *Nepenthe* prepared by Messrs. Ferris and Co., of Bristol, seem to constipate the bowels and to otherwise derange the system (if at all) less than any other preparations of opium.

It may be well to allude here to the action of life-assurance companies with respect to consumers of opium. Obviously, if the assured should, after assuring, begin to habitually take anything that shortens life, the policy would be invalidated.

But the question with regard to opium is, "Does it in these dietetic doses shorten life?" On the contrary, who knows that it does not lengthen it? It would undoubtedly be unfair on the part of a company, who had discovered that one of their constituents, having died at a good old age, had for many years taken opium, to, on that account, refuse payment to his heirs of the sum assured for. Cases of this

kind have occurred, and in most of them a compromise has, I believe, been effected. There is, however, a wide difference between one who takes a drug like opium dietetically with his physician's approval, and another who indulges in it for the sake of the mere sensual pleasure.

(To be continued.)

LOCALISATION OF THE VISUAL CENTRES OF THE CEREBRAL CORTEX—CASE.

By WILLIAM JULIUS MICKLE, M.D., M.R.C.P.,
Medical Superintendent, Grove Hall Asylum, London.

A "BLIND Bible-reader," aged sixty-five, and for many years totally blind, was admitted in February, and died in May, 1881. This was the first attack of mental disease, and the symptoms had only been active during the three weeks previous to the patient's admission; they had mainly consisted of maniacal excitement, delusions as to being starved and ill-treated, incoherence, irrelevancy in replies, and some refusal of food. He was quite blind; the anterior segment of the eyeballs being opacified and cicatrised by disease pertaining to a remote period. His grown-up daughter stated that the blindness had existed from a time beyond her recollection, and she seemed to connect it with a kick by a horse, suffered by the patient when a coachman. The eyes, she stated, had undergone several operations without avail, and the patient had been under the care of Mr. White Cooper. There was no other sensory symptom, and no motor. Illusion or failure of smell was not distinctly made out. Without describing the symptoms in full after admission, it may be said that he was more or less noisy, excited, incoherent and rambling in conversation, and under delusions as to ill-treatment and "starvation." Next day he rapidly became helpless, pale, and semi-comatose; and semi-coma remained on the following day with the pulse 64, the respirations 23, the temperature $99^{\circ}2'$; and blood was passed by the bowels. Next day the coma had nearly cleared up, and with a pulse of 80, a respiration of 36, and a temperature of $100^{\circ}3'$, there were indications of incipient colitis. Albuminuria, bronchitis, attacks of pulmonary congestion, slight pneumonia, and dysphagia, developed from time to time, and looseness of bowels was persistent. For a time he became quiet and much more rational, but memory was much impaired. Throughout, no hallucinations were evinced. Right pleurisy came on, and finally erysipelas of the face, and with this the patient became dull, stupid, and inattentive; the pulse rapid, feeble, 104; the respirations 30; the temperature $99^{\circ}3'$; the legs mottled with purple patches; septicæmia appeared present; and death soon followed. Various treatment was employed.

Abstract of Necropsy.—Cadaver well nourished; frame large. Slight caries, and perforation of dura-mater at, or adjoining, the basilar suture. Vertebral arteries highly atheromatous. Basilar and inferior cerebellar arteries slightly atheromatous. Atheromatous patches in all the vessels (and in their branches) entering into the formation of the circle of Willis, particularly in the posterior and middle cerebral arteries, the anterior cerebrals being almost free from this change. Much fluid drained from the arachnoid space, and much was seen in the subarachnoid space over the superior aspect of the cerebrum. The optic nerves, bound by slight adhesions to surrounding tissues, were somewhat atrophied, and of the softened yet stringy feel, and of the dull dirty-whitish look on cross-section, that I have on several occasions found in the optic nerves supplying long-blind eyes. Optic tracts wasted and soft. Olfactory bulbs and tracts atrophied and softened. Brain pale, and meninges rather so. Scarcely any thickening of meninges, or arachnoidal opacity, yet the arachnoid was firm at the interpeduncular space. There was some convolitional wasting at the superior and external aspects of the cerebrum. The grey cortex was very thin in parts of the parietal and occipital regions, also somewhat, and more universally, in the frontal; at the base of the cerebrum the grey cortex was pale and somewhat wasted, but less so on the inferior occipital surface. The brain was flabby, the white substance rather pale. The collection of subarachnoid serosity reached its maximum at the anterior part of the interparietal fissure on both hemispheres, and here the fissure was bridged on the right

side by a secondary convolution. In the left hemisphere the ascending frontal gyrus was narrow. The convolitional wasting on both sides mainly affected the upper part of the supramarginal gyrus, and slightly that of the angular. In consequence of this the horizontal ramus of the Sylvian fissure was slightly displaced and deflected more upwards. In the occipital lobes, and vividly contrasting with the general pallor, were almost symmetrically disposed patches of red softening of the cortex, to which the, elsewhere easily separable, meninges appeared somewhat adherent. That on the right side was about an inch from the great longitudinal fissure, and affected part of the second occipital gyrus, extending through the intervening sulcus to the outer part of the first occipital. On the left side the patch of softening had almost exactly the same position, but invaded the third occipital slightly. A similar change affected the external portion of the right postero-parietal lobule and the grey matter lining the adjoining part of the interparietal fissure. In the white substance, just beneath the grey, at the bottom of the right calloso-marginal fissure, and in a vertical plane through the middle of the optic thalamus, was a small, yellow-walled cavity. Slight wasting of left corpus striatum, doubtful or very slight wasting of both optic thalami, which were pale and flabby. Geniculate bodies not well marked on right side, and ependyma of ventricle beset with minute granulations at this point. Choroid plexuses pale and cedematous; fornix soft. Three drachms and a half of fluid in lateral ventricles; four ounces and a half of fluid collected from cranial cavity. Left cerebral hemisphere, $18\frac{3}{4}$ ozs.; right, $19\frac{1}{4}$ ozs.; cerebellum, $4\frac{1}{2}$ ozs.; pons and medulla oblongata, $\frac{3}{4}$ oz. Briefly as to the other organs. The heart was pale and flabby; the aortic valves were slightly atheromatous, and some easily separable thrombi adhered to them; the coronary arteries were highly atheromatous, and contained some semicalcareous patches in their walls. Endocardium and endarterium deeply blood-stained. Some recent pleurisy on the right side, with blood-stained effusion. Some hypostatic congestion of lungs, with firmer (infarct?) portions. Wedge-shaped infarcts of spleen. Kidneys considerably atrophied, somewhat granular, with small ordinary cysts; $3\frac{1}{2}$ and $4\frac{1}{2}$ ozs. Superficial, irregular, shallow, dark-surfaced ulcers of colon, and some intervening muco-colitis.

Microscopical Examination.—In the red and softened portion of the right postero-parietal lobule: Some of the vessels were strewn externally with finely molecular deposits, and were fatty-like in appearance; and even some capillaries had opaque patches in their walls. The nerve-cells were granular. There were granule-masses, and numerous free red blood-globules, some of them altered. After staining, the granular degeneration of the nerve-cells was displayed in a striking manner. Fine molecular deposits were obvious on the arteriole and capillary walls, and the calibres of these vessels were wide, and some were gorged with massed and broken-down corpuscles. In the right supra-marginal gyrus the branching nuclear (neuroglial) filaments gave more of a lace-work appearance. The nerve-cells were granular, but less so than as just above described in another gyrus. Irregular opaque (atheromatous?) patches in the walls of the minute vessels were here very obvious, and they were also strewn with fine molecules. On some of them the nuclei were of large size. In the red and softened portion of the right second occipital gyrus were slighter changes of similar nature in the vessels, and the small nuclei were abundant; but the nerve-cells were of more healthy appearance.

Remarks.—The granular degeneration of the ganglionic nerve-cells of the cerebral hemispheres was beautifully displayed in this case. In fact, it was at a stage in which the appearances are more interesting and conspicuous than they are at a later period when the work of destruction is more complete and the nerve-cells are in utter ruin. Just as a decaying palace or temple is more interesting and picturesque at a period before nearly all beauty of form, design, or ornament is buried in a shapeless mass of ruin. Here, with long continued double blindness, probably of nearly or more than twenty years' duration, was symmetrically disposed atrophy in the parietal regions of the cerebral cortex, on each side, mainly affecting the upper portion of the supra-marginal convolution, and that of the angular in much less degree. The microscopical changes in the minute vessels were well-marked here. There was also another symmetrically disposed change in the red softening affecting parts of the second and first occipital convolutions in both hemispheres

A predisposition to lesion of this kind was perhaps engendered by trophic changes affecting (among other constituents) the vessels of the part. It is true, however, that a similar condition affected a portion of the right postero-parietal lobule, where the vascular lesions were also well marked. Thus, functional disuse of both optic nerves for many years seemed to have brought about (a) symmetrical atrophy and slight interstitial changes of portions of both supra-marginal gyri (and, apparently, slight similar affection of part of the angular also); and (b) symmetrical vascular and interstitial changes in the occipital lobes, predisposing to local infarction; the starting-point of these trophic and atrophic local changes being, of course, the cutting-off of the natural stimulus of the part by ophthalmic disease, and, so far, consequent cessation of activity of the corresponding centres. In addition to the above there was general moderate degeneration and atrophy of the brain cortex. Dealing with the facts in the most simple and natural way, there seemed here to be evidence that whatever other cortical connexions (if any) the optic nerve may have, it has intimate functional and anatomical relationships with certain cortical foci, in this case symmetrically affected—certainly with the supra-marginal gyri, and perhaps also with the second and first occipital. The case does not favour the views, held by some, as to a localisation of the cortical visual centres limited to the angular gyri only; or, again, to the occipital bones only.

REPORTS OF HOSPITAL PRACTICE

IN MEDICINE AND SURGERY.

EAST LONDON HOSPITAL FOR CHILDREN.

DEFECTIVE DEVELOPMENTAL CONDITIONS AS SEEN PRINCIPALLY IN CHILDREN.

(Under the care of FRANCIS WARNER, M.D. Lond., M.R.C.P.)

(Continued from page 62.)

GROUP II.

CASES WITH EVIDENCE OF CONGENITAL HEART-DEFECT, NOT ASSOCIATED WITH OTHER KNOWN DEFORMITIES.

Case 7.—Heart-Defect—Cardiac Hypertrophy—No Bruit— Marked Cyanosis—Convulsions—No other Defects.

CHRISTOPHER P., aged seven months. The infant was very cyanotic, but the fingers and toes were not clubbed. The veins on the head were very prominent. There was no pulmonary collapse. The heart appeared hypertrophied, but there was no bruit; the pulse was irregular and intermittent. The child was subject to fits. No blueness was observed till the child was fourteen days old, when it came on suddenly. The child died, and Dr. Crocker, as pathologist, made the autopsy, and has described the heart in the *Pathological Transactions*, vol. xxx. The foramen ovale was patent; the ventricular portion of the heart consisted almost entirely of a much hypertrophied and dilated left ventricle. The mitral valve and ring were normal. The portion of the ventricle anterior to the mitral valve formed a pouch, from the top of which a slightly dilated but otherwise normal aorta arose; and at the upper part of the septum was a small foramen, leading into the rudimentary right ventricle, which consisted merely of a narrow channel terminating in the pulmonary orifice, and this was narrowed by adherent valves, the pulmonary artery being very narrow and thin-walled. The right auricle was much larger than the left. There was no trace of the tricuspid valve.

Case 8.—Heart-Defect—No Cyanosis—Bruit in Pulmonary Area—No other Defects.

James R., aged twelve months. A loud systolic bruit was heard over the heart, most intense in the pulmonary area, but also audible in the axilla and left vertebral groove; second sound normal. Heart's impulse forcible; no epigastric pulsation. There was no cyanosis, and the fingers were not clubbed. There was no other defect. Nothing in the history of the family or of the mother while pregnant suggested a cause for the heart condition. This child was an out-patient, and soon passed away from observation.

Case 9.—Heart-Defect—Cyanosis—Bulbous Fingers—No other Deformities.

Florence G., aged five years; general nutrition good. Cyanosis was well marked. The fingers were bulbous, and there was shortness of breath on any exertion. A systolic bruit was most audible at the middle of the sternum. The pulse was very small. Temperature 99° Fahr.

Case 10.—Heart-Defect—Cyanosis—No Clubbing of Fingers or Toes—No other Deformity.

Mary Q., aged four months. At heart's apex a systolic bruit; impulse feeble. Cyanosis marked, especially in lips and tongue; feet more blue than hands. This child's birth was preceded in the mother's history by two miscarriages at early months; the other members of the family appeared healthy; the father is of a consumptive family. The first day seen, heart's sounds appeared normal; afterwards a bruit was always heard at each visit. Fingers and toes presented no clubbing, but were cold. No deformity of ears, palate, or mouth; no rickets.

Mother has had ten pregnancies:—1. Girl, healthy, thirteen years; 2. Girl, died at ten months; 3. Girl, with an ill-shapen chest; 4. Boy, died at five years, bronchitis; 5. Boy, died at twelve weeks; 6. Boy, healthy, found dead in bed at three months; 7. Girl, generally healthy, corneal ulcers; 8. Miscarriage at half term; 9. Miscarriage at three months; 10. Patient.

Case 11.—Heart-Defect—Varying Amount of Cyanosis—No Bruit—No other Deformities.

Arthur F. L., aged seven months; appeared generally healthy; bowels regular; no flatulence; no sickness; sleep quiet. He was fed on Millin's malt food and milk. He appeared to have been a healthy-born child, but from birth had on and off looked very blue, especially during the last six weeks. He never had convulsions. Cyanosis was well marked, but varied on different occasions. Heart's impulse was forcible and diffused; there was no bruit heard; the heart-sounds were very audible at the back. The radial pulse was strong, and the carotids pulsated strongly. The fingers and toes were not bulbous.

Remarks on Groups I. and II.—Of these eleven cases of heart-defect no co-existing deformity was found in five. Cyanosis was present in six cases out of the eleven; and it is noteworthy that of these cyanotic cases the larger proportion were in Group II., where no co-existing deformities were found. In Case 10 cyanosis was more marked in the feet than in the hands. As to the signs of the presence of heart-disease, bruits were present in nine cases; hypertrophy, evidenced by forcible impulse, distinct area of dullness, strong pulse, or proven by autopsy, was present in seven cases; irregularity of action was present in three children. Clubbing of the fingers in three cases was noted. No symptoms dependent upon the heart-defect were noted in six of the cases given. In six cases some kind of evidence was obtainable as to causation. I found no evidence of "maternal impression" as a cause of congenital defects of the heart; but there was evidence against the family in four cases in such particulars as too many deaths or several miscarriages preceding the birth of the patient. In two cases there was no bruit, and in another case the presence of a bruit was very doubtful.

GROUP III.

CASES OF CLEFT PALATE.

Case 12.—Cleft Palate—No Heart-Defect—Head Small.

George D., aged four months, had been successfully operated on for harelip when two months old. He appeared healthy born, but wasted from the first week. The hard palate presented a narrow fissure extending far forwards and a little to the left of the median line. The heart was normal, and there were no other deformities; fingers not clubbed. The head was small (circumference fifteen inches), the fontanelle depressed. Weight of child nine pounds and a quarter. The child was admitted and died. Two former children in family healthy and well.

Case 13.—Cleft Palate—No Heart-Defect—Head Small— Premature Birth—Marasmus.

Sarah H., aged four months; a very emaciated child. Head small; circumference fourteen inches and a quarter. The child was born prematurely by at least one month, and was very emaciated. Bowels regular. No bruit.

Remarks on Group III.—Neither of these cases presented any known co-existing deformity, but in Case 1 a heart-defect accompanied cleft palate. Such a coincidence appears not improbable, and is worth looking for in other cleft-palate cases as a question affecting prognosis and the safety of chloroform in operating, etc.

GROUP IV.

DEFORMED UPPER EXTREMITY, AND INTRA-UTERINE AMPUTATIONS.

Case 14.—*Fingers Webbed—Ears not Symmetrical—Excessive Epicanthic Fold—Cerebral Deficiency.*

Arthur G., aged three years. He was a weak, listless, easily frightened child; dull, slow, and feeble in shaking hands, and in all his movements. He could talk but little, and could not be persuaded to put out his tongue. Somewhat rickety; tibia bent, ribs beaded. The ears were not symmetrical; the right one was not well shapen. The epicanthic fold of either eye was large and prominently developed. The fingers were webbed nearly up to the first internodes; the toes were normal; palate normal. The limbs were not blue, and there were no signs of heart-disease. He was said to have been ill, on and off, since ten months old, when he suffered from an attack of "congestion of the lungs." He had never had fits.

There had been six children in the family—No. 1, twelve years old, healthy; Nos. 2, 3, 4 died; then came the patient described; and No. 6 is a healthy child. The parents appeared healthy.

Case 15.—*Deformed Hand—Intra-uterine Amputation (?)—No other Defect.*

Harriet M., aged twenty-one years, had a defect of the right hand only, which existed at birth. Metacarpus and thumb well shapen; all the metacarpal bones perfect. Thumb and its nail perfect. Index-finger normal in the first phalanx; second phalanx small; third nearly rudimentary, but possessed both bone and a nail. Middle finger—first phalanx normal; second and third absent, without rudiment of a nail; ring-finger similar to middle finger, but shorter; little finger presented only a first phalanx, with rudimentary nail; the ring, middle, and little fingers presented transverse scars, as if from amputation. Ears, head, etc., well shapen. Heart normal.

Case 16.—*Deformed Arm—Intra-uterine Amputation (?)—No other Defect.*

Arthur H., an infant; presented no defect of heart, palate, ears, or other part than the right arm. The child was an ill-nourished twin. The right upper extremity appeared as if amputated through the forearm at the junction of the middle and lower thirds. A transverse scar from the inner to the outer angle of the stump, as if from an antero-posterior flap amputation. The end of the humerus could be felt in the stump, rounded but not bulbous. The deltoid was well developed, and the shoulder was moved in a lively manner. The scar was sound, with a little puckering at the corners. The child was very feeble and soon died.

Remarks on Group IV.—Two of these cases presenting defective upper extremities looked as if they had been intra-uterine amputations, and being traumatic, and accidental rather than developmental, it is not surprising that no other defect co-existed. In the adult case the presence of nails in a rudimentary state is curious. In Case 14 we see co-existing defects. The asymmetry of the ears and the webbed fingers were surely developmental defects, and they were accompanied by defective development of hands.

(To be concluded.)

THE PARIS NIGHT SERVICE.—Dr. Passant, in his report for the quarter ending December 31, states that there were 1632 visits made during the quarter, being 17 $\frac{9}{10}$ per night. These were paid in 35 per cent. to men, 50 per cent. to women, and 15 per cent. to children. In 49 instances the patient was dead before the arrival of the practitioner. The number of visits has increased from 3616 during the first year (1876), to 6521 during 1881.—*Gaz. des Hopitaux*, January 19.

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SALICIN AND THE SALICYLATES IN ACUTE RHEUMATISM.

THE discussion at the Medical Society of London on the Value of Salicin and the Salicylates in Acute Rheumatism, though it has given us nothing that is absolutely new, has not been without its value and uses. There remain still a good many points which we should like to see further elucidated, but one great fact comes out in a clear and distinct light—we mean, the value of the salicyl compounds in rheumatic fever. The profession is very rightly sceptical as to so-called specifics. Those remedies which we know to produce what we could only call specific effects are so few in number, and their mode of action is either so intangible or so peculiar, that we are most unwilling to admit any new drug into the category of these when any other grouping can be given to it. Even when no grouping is possible, we are always inclined to insist on anything called a specific having certain distinct characteristics—(1) that the remedy shall have clear and unmistakable control over a definite disease; (2) that this power of control shall be referable to the medicine itself, and not to any adventitious property generated of heat, cold, or the like; and (3) that its effects shall be such as to be incapable of explanation on any well-known or recognised theory. Probably, tested in this way, salicyl compounds are not specifics, strictly so-called, but they come very near them.

There are few diseases more generally prevalent than rheumatism, very few common diseases which are so painful, and probably none which, not being directly and immediately fatal, so often leave behind them a legacy of suffering and death. These facts, together with our apparent helplessness in dealing with it, have led men at all times to seek some remedy which shall have a powerful controlling effect on the disease, not only as regards lessening its violence, but also as giving us some means of obviating the fatal heart-complications which so often result from it. And it must be confessed that our search has for the most

part been in vain. When, therefore, Dr. Maclagan announced that he had found a specific for rheumatic fever in salicin, many eagerly grasped at the means of relief thus afforded, whilst many remained sceptical. This is probably the best frame of mind for the reception and investigation of any new line of treatment. All of us know the multitudes of remedies which have been introduced, vaunted to the skies, found wanting, and quietly dropped. All of us have heard of wonderful cures where only the processes of nature have been at work. Nevertheless, it is well that there should be enthusiasts to take up and try everything new, just because it is new; but it is quite as necessary that there should be cool heads and careful investigators to test any wonderful results thus obtained. Well, salicin met the usual hap, but not with the accustomed consequences. From the hands of enthusiasts it passed into those of men who had the skill and the means of testing the value of the drug. It was found in many cases, though not in all, to be highly beneficial; but it could hardly be said to come into universal use until the rare and not-easily-obtained salicin was to a great extent superseded by salicylate of soda—a substance first introduced as an antiseptic, but speedily turned to other uses, in the treatment of pyrexia, and then of rheumatism.

Salicin itself, and the ordinary willow-bark whence it is derived, had long been known in this country, and used—especially in domestic practice—as a tonic, and sometimes as an antiperiodic. In the latter respect, however, it has always been held as far inferior to quinine, though in certain cases agreeing better with the stomach, and not giving rise to the unpleasant symptoms produced by quinine in large doses. Salicylate of soda is a purely laboratory product. From this and the fact that the two have similar properties as regards rheumatism, it is plain that it is the fundamental principle, if we may use the expression, that possesses the efficacy, which is not limited either to the vegetable or the purely artificial product, which, chemically speaking, are not identical.

The first real discussion which took place, as regards the value of these two remedies, was at the Clinical Society, and arose on the reading of a paper by Dr. Greenhow, narrating the results of his own practice. Since that time more material has been collected, and the ideas in men's minds have taken more definite shape. But the great merit, as it seems to us, of the recent discussion at the Medical Society, is that most of the results have been given in figures. It is quite true that figures, like edge-tools, are awkward things to play with, especially when no uniform system of statistics is adopted; nevertheless, if they go in accordance with the matured, but unnumbered results of men's experience and study, the one strongly tends to confirm the other, and gives to both a weight which neither could possess apart from the other. It must not, however, as we have said, be conceived that every point has been settled with regard to the influence of salicyl compounds on rheumatism. Hitherto we have vainly sought an answer to some of the questions which have arisen in our own mind. Perhaps we might summarise what seem to us to be the chief questions which require settlement in connexion with the effects of the salicyl compounds in rheumatism, and our views as to how far men are agreed with regard to them. And to the very first question we would ask, we are obliged to give a most unsatisfactory answer. We know that both salicin and salicylic acid are useful in rheumatism, but are they equally useful, and do they both act in the same way, or rather, we should say, are their effects identical? It must be borne in mind that salicylic acid has been much more widely used, and so its effects must be better known, than salicin. But, apart from this, it has been alleged that

certain phenomena, especially deafness, headache, and even interference with the heart's action, do occur with the acid, whilst they are said never to occur with the vegetable product. Of the former series of these we should think as little as we do of the similar effects of quinine. We should think that the remedy was being pushed too fast and too far, but that would probably be all. The second allegation, if true, is a much more serious matter. On the other hand, we have it asserted, on good authority, that the efficacy of salicin is not nearly so great as that of the acid. At all events this is clear—that the vegetable requires to be given in equal if not larger doses than the artificial product, even when combined with soda.

The second question we would put, and the answer to which is again doubtful, is, whether or no the salicyl bodies are true anti-rheumatics—that is, specifics for rheumatism—or anti-pyretics only? This question must be answered in various ways, for no one single thing or circumstance can be taken as a test of the cure of rheumatism. That salicyl substances do in most cases speedily relieve pain and reduce temperature is now, we think, generally admitted; but can we call this curing the disease? We have said above that even thus much cannot be invariably predicated of it, but it is true in the great majority of instances, and some of the cases where the drug seems to fail may, according to Dr. Fagge, be overcome by increasing the dose. But it is by no means clear how this improvement is effected. Thus, Dr. Coupland has shown very fairly that pyrexia and pain are not of necessity associated in the relapse of rheumatism, for in some relapses there was pain alone, in others pyrexia alone; but he also showed most effectually that in the primary attack, as many had held before, the temperature comes down before the pain abates. Hence it is tolerably clear that we cannot well attribute the influence of salicyl either to an anti-rheumatic property alone or to an anti-pyretic property alone. At all events, the patient is relieved.

There are, perhaps, in all, four points which, if we could determine, we should arrive at something like a correct estimate of the value of salicin as an anti-rheumatic. These are—1. Does it shorten the whole duration of the disease? 2. Does it diminish or increase the chance of relapse? 3. Does it tend to foster or avert the recurrence of similar attacks? 4. Has it any marked influence over heart complications? Now, the first of these is notoriously a difficult question to answer. We say that it is generally admitted that the acute symptoms of rheumatism, especially the pain and the fever, are speedily relieved by salicyl. And many hold very strongly to the opinion that when it has done this it has done all that it can or ought to be expected to do. But as regards the ultimate cure, only one thing seems capable of affording any clue, and that is, the time which a judicious and careful physician would allow to elapse before he would discharge a patient as cured. The first day of getting out of bed is worse than no criterion, and even the period of discharge must be taken with important modifications. Weighed by the period over which risks extend, we find little reason to boast of the salicyl treatment. With regard to relapse the case is still worse, for with salicyl the number of relapses would seem to be greater than under almost any other plan of treatment. But this cannot fairly be attributed to that drug; the patient, feeling so much better with its use, cannot be persuaded that he runs any further risk, and all kinds of liberties are taken. Now, anyone familiar with rheumatism knows how apt relapses are to occur; what slight errors may give rise to a second attack, which may be even more serious than the first. Nevertheless, with all this, there is a suspicion—a kind of thing that cannot well be proved by figures, yet sufficient to bias men's minds—that the treatment by salicyl alone

rather fosters relapse than otherwise. With regard to recurrence we are in a still worse position than as regards relapse, and briefly it may be said that sufficient time has not yet elapsed to enable us to say more than that salicyl certainly does not prevent the recurrence of the disease. In hospital practice the relationship of heart-mischief to rheumatism is not easily studied; it is well known that in the great majority of cases—which, by the way, commonly make their appearance from the second to the seventh day after the commencement of pain—heart-disease is either begun before application is made to the hospital, or it is not likely to show itself afterwards. But when it has begun, of this we are assured, that salicyl has little or no control over it. And if it be true that in some cases salicylic acid has given rise to dangerous heart-symptoms where there was no apparent mischief, we should surely beware, where the heart's action is already irregular, and consequently imperfect, of giving anything further to embarrass it. It is better that the patient should suffer from some pain in his joints than that his life should be imperilled.

How then to give salicyl to the best advantage? To this question, fortunately, there seems, to our mind, to be no difficulty in replying. We know, as a matter of experience, that if salicyl is to do good at all, it will do so within a day, or two at the outside. When once the pain has gone and the temperature fallen, we can see no farther use for it until they return, should that ever be the case. But there are remedies on which we have been accustomed to rely, and not in vain, which may now well take its place. Chief among these are quinine and alkali. Nay, some give alkali from the very first, even with the salicylate, and with apparently good results. But no medicine will suffice without good nursing and careful attention to diet; these are of the utmost importance. Whilst finally, before discharging the patient, it is advisable to have him so far convalescent that he can take with advantage such a mild preparation of iron as, let us say, the ammonio-citrate.

PERMANGANATE OF POTASH IN SNAKE-POISONING.

OUR readers will remember that not long ago it was reported that M. de Lacerda had discovered that permanganate of potash effectively counteracts the poison of serpents; and when noticing this report we stated that Dr. Vincent Richards, of Gorum, Bengal, was making experiments in order to test the power of the permanganate to neutralise the poison of the venomous snakes of India. Dr. Richards is especially well fitted for this work, inasmuch as he was a member of the Commission for the Investigation of Snake-poisoning, and joint-author of the "Report on Indian and Australian Snake-poisoning." He has now published in our contemporary the *Indian Medical Gazette* (a) his first series of experiments on the subject, and we propose to place before our readers the summary of these experiments and the conclusions drawn from them by Dr. Richards. Thirty-three experiments were made; twenty dogs, ten fowls, and one duck having been operated on. In thirteen instances more than a fatal quantity of cobra-poison dissolved in water was mixed with permanganate of potash and introduced beneath the skin or into a vein, without symptoms of cobra-poisoning following in any one instance. In four experiments a solution of cobra-poison in glycerine was mixed with the permanganate and injected beneath the skin, and death by poisoning resulted in every case. In one instance a dog was hypodermically injected with cobra-poison, and then with ether, and soon after with permanganate of potash: and in this case also death followed. In

seven cases the cobra-poison was first introduced hypodermically, and the permanganate subsequently; with the following results. Immediately after the poison, in a fowl, death resulted, but Dr. Richards states that the dose of the poison was overwhelmingly large; one minute after the poison, in a dog, and no symptoms followed; two minutes after, in two dogs, no symptoms; three minutes after, in a dog, no symptoms; four minutes after, in a dog, no symptoms; and, lastly, seven minutes after, in a dog, followed by death in rather more than an hour. In this case, Dr. Richards is doubtful whether the permanganate was efficiently injected. In all but seven of the experiments the poison employed had been collected by Dr. Richards himself; and in every instance the quantity of it injected was more than twice or thrice that required to produce a fatal result. In twenty-seven instances permanganate of potash was employed, and in eighteen there resulted no symptoms whatever of cobra-poisoning. In nine cases death resulted; but in five of these other agents were used besides the permanganate—in one the permanganate was injected rather more than five hours before the poison. In only three cases did the permanganate seem to fail. Two of these we have already mentioned; in the third, a ligature was applied after the injection of the poison, and then the solution of the permanganate was injected, but it was very doubtful whether the ligature had been effectively applied.

Dr. Richards' conclusions, from these carefully performed experiments, are:—1. That in dogs no appreciable symptoms of cobra-poisoning followed the hypodermic or intravenous injection of a watery solution of from two to seven centigrammes (about one-third of a grain to rather more than one grain) of cobra-poison, when previously mixed with from one to three decigrammes (one grain and a half to four grains and a half) of permanganate of potash, though, under ordinary circumstances, such quantities hypodermically injected are more than sufficient to cause death. 2. That when similar quantities of a watery solution of cobra-poison were hypodermically injected into dogs, and were followed, either immediately or after an interval of four minutes, by the hypodermic injection into the same part of a watery solution of the permanganate (one to six decigrammes, or one grain and a half to nine grains), no appreciable symptoms of poisoning followed. That when glycerine was used instead of water to dissolve the dried cobra-poison, the permanganate appeared to have no power over the virulence of the poison. 4. That after the development of symptoms of cobra-poisoning, the injection of the permanganate of potash, whether hypodermic or intravenous, failed to exercise any influence upon such symptoms. 5. The permanganate possesses no prophylactic properties, since death followed the hypodermic injection of three and a half centigrammes (a little more than half a grain) of cobra-poison in watery solution, in a dog which had been hypodermically injected a few hours previously with eight decigrammes (twelve grains) of the permanganate in solution. 6. That it would appear to be absolutely necessary that the permanganate, to be efficacious, should come into actual contact with the cobra-poison. 7. That although no symptoms of cobra-poisoning followed an injection of cobra-poison and permanganate, sloughing of the part injected sometimes followed. 8. That up to the present time it has never been experimentally shown that any agent has either the power to neutralise the cobra-poison lying in the tissues, or to prevent death, when four minutes had elapsed from the time of the injection of the poison to that of the treatment. Dr. Richards considers that his conclusions neither confirm nor controvert M. de Lacerda's, as that gentleman experimented with other poison than that of cobra. Dr. Richards intended continuing his

(a) *Indian Medical Gazette*, January 2, 1882, pages 1-5.

experiments, so as to test the power of the permanganate over varying quantities of cobra-poison, and at varying intervals between the time of the injection of the poison and the injection of the permanganate—with and without the efficient application of a ligature. He also proposed to make experiments with viper-poison, as it has been shown, by Dr. Wall, that the poisons of the cobra and the viper differ entirely in their physiological effects—the former acting upon special nerve-centres in the medulla, and the latter producing blood-poisoning. Finally, Dr. Richards remarks that, if permanganate of potash possesses the power of destroying so subtle a poison as that of the cobra, it is probable that the hypodermic injection of the agent in the bite of a rabid animal would destroy the virus which causes that terrible disease, hydrophobia. But he considers that no washing of the bitten part with a solution of the permanganate, as recommended by Mr. Condy, would suffice. The bitten part should, he holds, be well injected, hypodermically, with a solution of the permanganate (two grains to a drachm of water). The punctures should be well incised, and after being thoroughly washed with a similar solution, should be dressed with pulverised permanganate.

THE HEALTH OF THE NAVY DURING 1880.

THE Statistical Report on the Health of the Navy for the year 1880, ordered by the House of Commons to be printed, was issued by the Director-General of the Naval Medical Department before the close of last year. There is no feature of novelty in connexion with the present volume, which, it will be remembered, is now only a record of statistics, no papers from medical officers at home or abroad being allowed to be included, as heretofore. On reference to the various returns it will be found that, compared with the preceding year, there was an increase in the ratio of cases entered on the sick-list equal to 55.46 per 1000 of force. In the invaliding rate, on the other hand, there was a reduction to the extent of 1.85 per 1000; it is also pointed out that the progressive reduction in the invaliding rate which has been observed in later Reports still continues, and it is noteworthy that this reduction is principally amongst the men above the age of forty-five, who, in former years, furnished a high rate of invaliding. Deputy Inspector-General Dick is of opinion that this decrease may probably be explained by the fact that, owing to the searching inquiry now made into the cases of men breaking down abroad, great care is bestowed on the physical examination of drafts for foreign service. Again, one melancholy catastrophe gives an abnormal death-rate: the total number of deaths was 563, of which 207 were due to disease and 356 to violence; but in this latter number the loss of 279 men in the ill-fated *Atalanta* is included. The death-rate from disease alone was 4.62 per 1000, and from violence 7.95 per 1000; the total death-rate (12.57 per 1000) shows an increase, compared with the preceding year, of 3.99. Exclusive of the loss of life in the *Atalanta*, the total deaths only amounted to 284; which gives a ratio of 6.34 per 1000, and shows a decrease, compared with 1879, of 2.24 per 1000. The lowest sick-rate for the year (40.53) was on the Home Station, and the highest (55.42) on the China Station. The age-tables which accompany the Report show that the sickness of the Royal Navy in 1880 was distributed in nearly the same proportion over the different periods as in previous years: boys and men between fifteen and twenty-five still continued to furnish a sick-rate largely in excess of that observed in the other decennial periods; whilst the lowest ratios of sickness were, as before, those of men above forty-five. Little, if anything, of an exceptional nature is recorded

from the Stations abroad; remittent fever prevailed extensively in the *London*, permanently stationed at Zanzibar, but the cases, though very numerous, were not generally of a grave character, and, even in those which were most severe, no indication of danger to life appeared. The fever was, however, accompanied by great distress and suffering, and it was followed by a degree of debility with anæmia out of proportion to the intensity of the attacks; and this state was in very many instances but slowly recovered from. The specific cause of the large number of cases occurring in this ship is, the Report affirms, doubtful. On shore at Zanzibar, with the exception of a few cases in March, the hot season of the year was unusually healthy; moreover, the men of the *London*, employed in the cruising boats, and exposed to all those conditions which are said to generate and spread malaria, had a most remarkable immunity from it. The main form of treatment consisted in the administration of quinine to the extent of producing moderate cinchonism, and in maintaining that state until the fever declined. In all, 127 cases were placed on the sick-list from this cause, and the total number were discharged cured after an average period of treatment for each of 9.24 days. In dealing with some cases of small-pox which occurred on the China Station, the Report says that this disease appears to prevail epidemically in Chinese towns with much regularity every winter and spring; their houses being, from the inclemency of the weather, much crowded during these months, which is the season selected by the native practitioners for practising inoculation. This is reported to be done in one of two ways—either by the introduction of powdered small-pox pustule crust into the nostril of the child, or by the employment as a wet-nurse of a woman who has already nursed a child with small-pox: therefore, the Report continues, that the disease under such encouraging circumstances should prevail at the seasons previously mentioned, is not to be wondered at.

THE WEEK.

TOPICS OF THE DAY.

AT the recent Winter Assizes at Maidstone, Caroline Tompsett, an elderly woman practising as a midwife at Tonbridge, surrendered to take her trial for the manslaughter of Ann Jane Morgan. The prosecution was undertaken by the Treasury. In his opening, Mr. Biron, who appeared to prosecute, described the case as one of a very unusual character, the offence imputed to the prisoner being that, by negligence and want of proper precaution, she had infected the deceased with puerperal fever, and had thus, by culpable negligence, caused her death. From the evidence adduced it appeared that on August 25 last the prisoner attended the deceased in her confinement, and two or three days afterwards she was attacked with the fever which proved fatal on September 1 following. Dr. Stanford, who attended the deceased, was examined at some length. He believed that the prisoner was very careful with her patients; she had often called him in to help or advise her, and he had given her assistance in such cases. He remembered seeing her about a fortnight or three weeks before August 25, when she said the patients she was attending were not doing well. He told her that he feared she was carrying some septic poison about with her, and advised her to wash her hands in carbolic acid or some disinfectant, to have her clothes disinfected in the oven at the infectious hospital, and to be otherwise careful. He did not then know that she had been attending patients suffering from puerperal fever. Dr. Johnson and Dr. Coates, who had each attended cases of puerperal fever which the prisoner had been nursing, also gave evidence. The latter gentleman deposed that the

prisoner asked him how long a time it ought to be before she attended another case of confinement, and that he told her she should not go near another case for at least a month. Mr. Justice Grove, in summing up, left it for the jury to decide whether the prisoner had knowledge that the other women she had recently attended had been suffering from the fever, and if so, whether she had been guilty of criminal carelessness in acting as she did. The jury, after some deliberation, returned a verdict of "Not guilty."

The position of the Managers of the Metropolitan Asylums Board, as we have frequently had occasion to point out, is by no means a pleasant one. In carrying out the duties entrusted to them they are continually giving offence to certain portions of the inhabitants of the metropolis, and their manner of handling the funds entrusted to them has aroused the indignation of the various local boards who are called upon to contribute. A special meeting of metropolitan guardians of the poor was recently held at the City of London Union, to consider the subject of the alleged excessive expenditure of the Managers, and representatives from seventeen unions and parishes in the metropolis attended. A letter upon the subject of the meeting had been addressed to Mr. Gladstone, who had made the highly diplomatic reply that he had no doubt the subject would receive due consideration from the Minister to whose department it belonged. The Home Secretary was, *more suo*, less courteous, and sent only a formal acknowledgment of the receipt of a communication on the subject; and the Local Government Board, as usual, sent a wordy and unsatisfactory reply. They explained that, although the expenditure of the Asylums Board was large, it had been made under great pressure, to protect the inhabitants of the metropolis from the consequences of a very serious epidemic. Moreover, had not the various sanitary authorities failed to provide for the non-pauper class, the Asylums Board would not have had to make the "extraordinary provisions" which had entailed on them so heavy a cost. The guardians were not content with the general and rather vague charge against sanitary authorities; and a resolution was unanimously agreed to, asking the Local Government Board for information in detail as to the "extraordinary provisions" the Managers of the Asylums Board had been called upon to make; by whom they were called upon to make them; the date upon which they were made; the cost of them; and a return of the number of non-pauper patients who availed themselves of these provisions. The meeting then formally adopted a resolution, already passed by the Westminster Local Board, expressive of the opinion that, the Asylums Board having called on the ratepayers of the metropolis for a contribution of £240,000 for the current half-year, a Parliamentary Commission should be appointed to inquire into the working of the Acts under which the Asylums Board existed, its expenditure, and the results obtained. Copies of the resolutions were ordered to be forwarded to the various local boards.

A class of the Volunteer Ambulance Department, which had completed a course of instruction in ambulance duties, was last week officially inspected in the Guildhall, when the Lord Mayor presented the certificates of efficiency. Major-General Higginson, C.B., commanding the Home District, attended, and the class was inspected by Surgeon-General Shelton, of the Army Medical Department, with whom were Brigade-Surgeon Kidd, Surgeons-Major Don and Clarke, and Captain Pringle and Lieutenant McKay, of the Army Hospital Corps. The class was duly put through its drill, to the entire satisfaction of the inspecting officers, and the certificates which had been gained were distributed. It may not be out of place to note that the Volunteer

Ambulance Department, which was originated in 1876, has, under the patronage of the Duke of Cambridge, and with the experienced assistance of the heads of the Army Medical Department, now been officially recognised by the War Office. Members of the Volunteer force who join the classes are instructed in ambulance duties, the proper treatment of wounded in the field (in accordance with the practice prescribed in the official Red Books of instruction), and the system adopted by the Army Hospital Corps at Aldershot, so that in case of emergency this force would be able to work with the regular Army. Since the classes of instruction commenced, over 1200 men have been enrolled in London alone, and 845 of these have attended the requisite number of lectures and drills, and entitled themselves to certificates of proficiency. In the provinces, also, a large number of men have been under instruction, and over 470 certificates have been granted, bringing the total number of efficient men to 1315. Allowing two men to a company, however, it is calculated that about 5000 men of the Volunteer forces should be available and competent to undertake the duty.

A numerous meeting of the Social Science Association was recently held to consider the working of the present lunacy laws. Mr. Dodds, M.P., presided, and at the outset explained the Parliamentary position of the question. Mr. Miller, Q.C., then read a paper, in which he stated that this was but one of a succession of efforts he had made to attract attention to the subject. He strongly condemned the apathy of the public, which he attributed to the fact that the majority of people flattered themselves that they were in no danger of being taken for lunatics. He wanted to bring home to the public that there was no man or woman who was not liable to be detained for life, without notice, and without investigation, if anyone were sufficiently interested in getting him or her out of the way to make it worth his while to secure the services of two medical men and the connivance of the keeper of a private asylum. He then gave what he considered to be instances which had fallen under his own knowledge; and suggested the machinery he considered advisable and certain to secure that no sane man shall be detained as a lunatic, except in error. In all this, about asylums and certification, there was nothing new, and very little that is true. All the faults of the lunacy laws were exaggerated; the special necessities and difficulties attending the prompt treatment of mental diseases being ignored. And this will and must happen when and wherever lunacy is regarded from the lawyer's standpoint instead of from the medical man's.

Dr. Tristram, Q.C., the Chancellor of London, recently held a Consistory Court in St. Paul's Cathedral, to hear an application on the part of the rector and churchwardens of St. Luke's, Chelsea, to erect a mortuary on the old closed burial-ground near King's-road, Chelsea. Dr. Phillimore expressed to the Court the nature of the application. The mortuary would contain three rooms, some distance from houses, one of which would be used for infectious diseases, and in another the poor would be enabled to deposit the bodies of their dead waiting interment. The learned counsel said it was a great object that the poor, who often lived in a single room, should have a place to which their dead might be removed until the funerals took place. Several witnesses were called in support of the application, and it was stated that the plans, as then exhibited, had been approved by the Bishop of London. The learned Chancellor granted a faculty to erect the mortuary, to remain a fortnight on the registry in case of any objection.

It will be remembered that some few weeks since we published an account of the proceedings taken by Mr. Archibald

Dobbs, barrister, a ratepayer of the parish of Paddington, against the Grand Junction Waterworks Company, with a view of determining that in law they are not justified in basing their charge for water upon the gross value of hereditaments, as set forth in the Valuation (Metropolis) Act, 1869, but on the rateable value only. The matter was then decided in favour of the Company, but Mr. Dobbs was granted a case for the higher court. In connexion with these proceedings, the Paddington Vestry, at a meeting held on the 17th inst., resolved—"That this Vestry do contribute a sum not exceeding one hundred guineas towards the costs of Mr. Dobbs, in the event of his prosecuting his appeal against the Grand Junction Waterworks Company; and that the clerk be instructed to forward a copy of this resolution to the various vestries and district boards in the metropolis."

We are glad to learn, on the authority of an evening contemporary, that the Vestry of the parish of St. George-the-Martyr have caused notices to be issued throughout the district, calling attention to the danger arising from throwing orange-peel on the pathway, and intimating its intention to prosecute offenders in this respect, who are liable to a penalty of 40s. to £5 for the offence. In consequence of the numerous accidents which occurred last year through this practice, the Vestry mentioned have determined to take advantage of the powers they possess under the Act relating to public nuisances, but which they have rarely put in force. In the City the question has for the past three weeks been engaging the attention of the Commissioners of Sewers. At the present time, although daily the police see orange-peel strewn on the pavement, and persons tripping over it, they are powerless to take action in a way that would prove effectual. It is stated that in a short time the City will be placed on a footing, in this respect, with other parts of the metropolis, and be enabled, therefore, to summon offenders of this class.

By the sanction of the Chairman of the St. Marylebone Guardians, lectures are to be given to the Nightingale staff of nurses at the St. Marylebone Poor-law Infirmary, Notting-hill, by Dr. Lunn and Dr. Percy Potter, Lecturer to the St. John Ambulance Society, on the outlines of physiology, the principles of ventilation, and other like subjects, a knowledge of which on the part of the nurses will be likely to enhance the comfort of the sick.

DIRECT VACCINATION FROM THE CALF.

At a recent meeting of the Society of Medical Officers of Health (Dr. Tripe, the President, in the chair), Dr. B. Browning read a paper "On the Practical Working of Direct Vaccination from the Calf." For some time past, Dr. Browning said, he had used nothing but lymph directly obtained from the calf. Properly prepared, this lymph has never been known to produce any evil effects. It can readily be sent by post, as recently happened, when a crew of 300 men were vaccinated within a few hours from the time of an order for the lymph being telegraphed for. Dr. Browning gave some striking instances in support of his theory, opposed, as it is, to many leading authorities. He cited one very strong case, in which he had vaccinated two infants newly born into an atmosphere of virulent small-pox, and both escaped the disease; whereas, a third infant, which he vaccinated with humanised lymph, for want of the other, took small-pox afterwards, though only slightly. The prejudice against vaccination, Dr. Browning considered, would soon diminish, or wholly disappear, if the direct system were introduced. The calf-lymph should be used as fresh as possible; though the lecturer had known Canadian and other preserved lymph perfectly efficacious and healthy up to six weeks old. Dangers

from the use, even though careful, of lymph transferred through the human subject were dealt with in Dr. Browning's paper, as were also the methods of obtaining safe animal lymph. With an organised system of direct animal vaccination alone, worked by the public vaccinator of each district, pure lymph, Dr. Browning holds, might be produced daily, sufficient for the wants of everyone, at a much cheaper cost of time, money, and trouble than is now required for our compulsory vaccination, and with the effect of practically abolishing small-pox. We shall publish Dr. Browning's paper in full as soon as possible.

THE SO-CALLED "BRANDING" CASE.

A CASE has just been decided in the Court of Queen's Bench, which carries with it a lesson to every practitioner. The case was altogether an uncommon one. A young man, an apprentice, had for some reason or other made his way into the bedroom of his master's children, where he was discovered underneath the bed. He was somewhat roughly removed to his own room, where he assumed the appearance of being in some kind of a fit. A neighbouring surgeon, Mr. Manders, was then sent for, who, concluding that the fit was a pretence, suggested as a remedy either horse-whipping or a ducking under the pump. Neither convenience being handy, Mr. Manders suggested and obtained a hot poker, which he applied to the youngster's leg. Whether he inflicted all the injuries alleged or no does not greatly matter. The action was an unjustifiable assault, and it cannot be too widely known that recourse, without consent, to all violent remedies is an assault in the eyes of the law. No one could look upon a poker, hot or cold, as a surgical or medical instrument—except in the sense of its preparing raw material for surgical purposes. Even the policeman's favourite plan of detecting shamming is of the nature of assault, and could not safely be had recourse to by a practitioner.

THE METROPOLITAN ASYLUMS BOARD.

At the last fortnightly meeting of the Metropolitan Asylums Board, amongst other business transacted, the question of the necessity of the Board having to provide hospitals for the reception of non-pauper patients was discussed; it was asserted that nine-tenths of the cases admitted were of that class. A letter was read from the Paddington authorities, objecting to send the small-pox patients of that parish to Deptford; and it was ordered that the Paddington authorities should be informed that as the Fulham Hospital (for the West-end of London patients) had been closed by injunction against the reception of small-pox cases, the Managers could only receive patients in the asylums which were still available. Then a letter was read from the South London authorities, objecting to the Deptford Hospital being used for a large portion of the small-pox cases from the West of London. It was stated that the Local Government Board had agreed that the maximum number of cases at Deptford should be 300. The small-pox returns showed that during the fortnight 176 cases had been received, 30 had died, 169 had been discharged, and 363 remained under treatment. The Darenth camp had not been closed (as agreed to at the last meeting) owing to the continued pressure of cases. In addition to these 363 patients in the asylums, there were now 135 at Darenth, in all 496; and, with 10 *en route* for Darenth, there were 506 under the care of the Board, or an increase of 6 over the last return. The fever returns showed that during the fortnight 89 patients had been received, 15 had died, and 114 had been discharged, leaving 388 cases of fever now under treatment, viz., 230 scarlet fever cases, 33 of typhus, and 125 of enteric fever.

THE PARIS WEEKLY RETURN.

THE number of deaths for the second week of 1882, terminating January 12, was 1182 (624 males and 558 females), and among these there were from typhoid fever 28, small-pox 10, measles 12, scarlatina 3, pertussis 1, diphtheria and croup 72, dysentery 2, erysipelas 5, and puerperal infections 8. There were also 44 deaths from tubercular and acute meningitis, 195 from phthisis, 57 from acute bronchitis, 111 from pneumonia, 73 from infantile athrepsia (29 of the infants having been wholly or partially suckled), 123 from diseases of the cerebro-spinal apparatus, and 27 violent deaths (18 males and 9 females). Compared with the first week of the year, there is some increase in deaths from typhoid, measles, diphtheria, and puerperal infections; and some diminution in deaths from small-pox, scarlatina, pertussis, and erysipelas. The births for the week amounted to 1234, viz., 622 males (465 legitimate and 157 illegitimate) and 612 females (449 legitimate and 163 illegitimate): 84 infants (53 males and 31 females) were born dead or died within twenty-four hours.

COLLEGIATE LECTURES.

PROFESSOR PARKER, F.R.S., will commence his annual course of nine lectures on the Morphology of the Mammalian Skull, in the Theatre of the Royal College of Surgeons, on Monday, February 6; and will be succeeded by Professor Flower, F.R.S., who will deliver nine lectures on the Anatomy, Physiology, and Zoology of the Edentata, commencing February 27. Professors Hutchinson and Yeo will deliver their respective courses some time in June—the former will give six lectures on Temperament, Idiosyncrasy, and Diathesis in relation to Surgical Disease; the latter will deliver three lectures on a subject which will be duly announced.

SUPERANNUATION OF POOR-LAW UNION OFFICERS IN IRELAND.

A DEPUTATION from the Council of the Irish Medical Association waited on the Chief Secretary to the Lord Lieutenant of Ireland on Monday afternoon, the 23rd inst., for the purpose of urging the Irish Government to give its approval to a Bill to provide superannuation allowances under more satisfactory arrangements than those now in force for Poor-law medical officers. The deputation consisted of Mr. Gibson, M.P.; Dr. Lyons, M.P.; and some other members of Parliament; Dr. Banks, President of the Irish Medical Association, and Dr. Johnston and Dr. J. W. Moore, President and Vice-President of the College of Physicians; Dr. Kidd and Dr. Duffey, President-elect and Hon. Sec. of the Dublin Branch of the British Medical Association; Mr. Porter, Surgeon to the Queen; and many other medical men. The deputation was received by Mr. Forster, Mr. Herbert Gladstone, M.P., and Mr. Henry Robinson, Vice-President of the Local Government Board. Dr. Jacob, upon request of the President, submitted to the Chief Secretary the memorial of the Association, and spoke at length, pointing out the great injury to the sick poor and the injustice to the medical officers resulting from the existing superannuation law. He adduced numerous instances in which medical officers of advanced age and great infirmity were obliged, because of the uncertainty of obtaining a retiring pension, to continue in office and attempt to perform impossible duties. After some further observations from Dr. Banks, the Chief Secretary said that the subject had occupied the attention of Government since last year, and that he had carefully considered the question. He had come to the conclusion that the circumstances dwelt on by Dr. Jacob needed to be dealt with by the Government, and therefore he intended, with the aid of Mr. Herbert Gladstone, to take the matter in hand and introduce a Bill thereon early in the session. The Bill would seek to transfer to the Local Government Board for

Ireland all the powers now vested in boards of guardians as to superannuation allowances and retiring gratuities, and it would include within its scope all union officers, medical and non-medical. The Bill would place these pensions upon a general rate contributed by all the unions in Ireland, and he believed that an extremely small tax would be sufficient for the purpose. Lastly, the Bill would adopt the scale and regulations as to age, etc., now in force for the Civil Service.

DEATH OF PROFESSOR THEODOR SCHWANN.

THEODOR SCHWANN, the great founder of the cell-theory, has recently died, at the age of seventy-one, at Liège, where he has been Professor of Anatomy since 1848, having previously held the same post in the University of Louvain. He was born near Düsseldorf, on December 7, 1810, and was assistant to Johannes Müller in the Berlin Anatomical Museum for several years.

EPIDEMIC OF MEASLES IN DUBLIN.

A VERY widespread, and indeed fatal, epidemic of measles is prevailing in Dublin at the present moment. It commenced in the end of October in the northern districts of the city, but has latterly extended across the river to the southern districts and to some of the suburbs. Some idea of the rapidity with which the outbreak has recently made way may be gained from the following statement of the deaths from measles registered each week in the Dublin Registration District in the quarter ended December 31, 1881, viz., 0, 0, 3, 2, 4, 5, 5, 7, 0, 11, 24, 33, and 39 respectively. In the four weeks ending December 31, as many as 107 deaths from this disease were registered, and 98 of the victims were *children under five years of age!* It is to be noted that the epidemic has so far visited the northern districts of the city with the greatest severity. Thus the deaths in the four weeks in question were 35 in No. 3 North City District, 30 in No. 2 District, and 13 in No. 1 District—altogether 78 in the three North City Districts. It is a noteworthy fact that only 8 out of the 107 deaths from measles occurred in all the chief Dublin hospitals. On Saturday, December 31, 55 cases of the disease were under treatment in the principal hospitals.

THE ETIOLOGY OF SCARLATINA.

DR. EKLUND, of Stockholm, has for several years devoted much time to the study of the pathology and etiology of scarlatina, which is constantly present in the Swedish capital, and rarely absent from the barracks and other dwellings on the Isle of Skeppsholm. The results at which he has arrived cannot fail, if confirmed by other observers, to be of the highest practical importance as solving the connexion, too frequently seen to be ignored or explained away, between bad drainage or other insanitary conditions and outbreaks of scarlatina, which otherwise must be admitted to have been produced spontaneously—i.e., without actual infection. In the urine of persons suffering from scarlatina he has constantly found a prodigious number of discoid corpuscles, oval or round, their diameter being less than $\frac{1}{1000}$ millimetre, or from a thirtieth to a tenth of that of a red blood-cell. They are colourless or yellowish-white, surrounded by a distinct cell-wall, and containing a well-defined nucleus of a deeper hue; sometimes one or more nucleoli may be seen. They exhibit rotatory or oscillatory movements, especially when a drop of water is added to the fluid. They multiply themselves, as he has frequently observed, by fission, first of the nucleolus, next of the nucleus, and finally of the entire cell. He cannot say whether they develop into a mycelium; at any rate, the presence of fine filaments seems to be exceptional. He has never seen them to

adhere in moniliform chains nor massed as zoogloea. He considers them to be veritable *schizomycetes*, and proposes the name of *plax scindens*. But Dr. Eklund most positively asserts that he has found these identical organisms in vast numbers in the soil and ground water of the Isle of Skeppsholm; in the mud from the trenches dug for the water-mains; and among the greenish moulds of the walls of the old barracks, where scarlatina was most rife. Nay, more, he alleges cases of scarlatina occurring in children after drinking milk mixed with the ground water of the island, and one case which followed on immersion in one of these trenches, and the drying of the child's clothes in a small room. In still another case scarlatina broke out in a block immediately on the exposure of the ground water by excavations around. Other observers have found micrococci in the animal fluids in scarlatina, but, even if they were shown to be invariably present in the disease, it would not prove that they were its cause. Still less can the connexion of the extra-corporeal organisms with scarlatina be demonstrated by anything short of direct verification by inoculation into a healthy body carefully isolated from all other sources of infection. It is the absence of this last condition of scientific precision which casts a doubt on all conclusions drawn from accidental, or, as Mr. Simon would say, popular experiments.

THE PARIS FACULTY OF MEDICINE.

ON the occasion of Prof. Charcot vacating his chair of Pathological Anatomy for that of the Clinic of Nervous Diseases, Prof. Hayem has requested that he should be transferred to it from his present chair of Therapeutics. Many of the Faculty, although believing him highly capable of filling this latter chair, object on principle to the "permutation" of chairs, and his request was agreed to only by a majority of three—sixteen to thirteen votes.

REPORT ON THE HEALTH OF THE PORT OF LONDON.

THE half-yearly Report of the Medical Officer of Health for the Port of London (Mr. William Collingridge), for the period ended June 30 last, bears additional testimony to the influence of the Sanitary Committee in promoting the sanitary condition of vessels trading to the Thames. In the year 1873, when systematic examination was first commenced, it was found that the proportion of those requiring cleansing was 17 per cent.; whereas, during the latter half of 1880 it had fallen to 3 per cent., and in the period under notice it had reached only 2.5 per cent. The health of the port of London for this half-year is stated to have been remarkably good, and with the exception of cases of small-pox—in almost every instance traceable to the epidemic of this disease prevalent in the metropolis—few cases of infectious disorders have been discovered. As the Asylums Board's small-pox hospitals were full, it was considered advisable to utilise the Sanitary Committee's hospital-ship *Rhin* at Gravesend, for such cases as should occur within the limits of the latter authority's jurisdiction, inasmuch as it was quite out of the question to allow them to remain infected on board their own vessels. This arrangement, Mr. Collingridge remarks, suggested to the Metropolitan Asylums Board the idea of placing vessels on the river as hospital-ships; but, he explains, the position finally selected for these receiving ships at Deptford was strongly opposed by him on account of their proximity to Greenwich and other populous districts at that part of the river. On April 27, 1881, it was reported that a vessel had passed into dock with cases of plague on board, and Dr. Netten Radcliffe was at once sent down by the Local Government Board to investigate the matter in conjunction with Mr. Collingridge;

the report, however, proved to be without a shadow of truth, the only foundation for it being that after the vessel had left Bussorah the previous February, the plague had broken out there. The Report observes that the condition of the Thames still continues, as it must do while the sewage of the metropolis is poured into it, a source of great anxiety to all concerned with the health of those engaged on it. Public attention, Mr. Collingridge says, is being gradually drawn to the serious error committed in throwing such valuable material into the river, and a strong feeling is growing up that, sooner or later, arrangements will have to be made more consistent with common sense and the present state of sanitary science. It is satisfactory to be able to record that the health of the training-ships during the period to which the Report refers has been exceptionally good, not one case of infectious disease having occurred on any of them. This is the more remarkable as the number of boys on board these vessels averages about 1750, all of them at a time of life when they are most susceptible to the influence of zymotic disease. A striking feature of the first six months of the year 1881 was the largely increased amount of emigration from the port of London; the emigrants were for the most part Germans, together with representatives from most parts of Central and Eastern Europe. They arrive principally from Hamburg to join the vessels leaving the Thames, and as they are dirty in their habits, and exceedingly likely to carry with them infection, they are a source of much anxiety to the Medical Officer of Health. As a proof that these fears are not without foundation, it was clearly proved that they carried small-pox to Glasgow, and in the port of London three cases of the same disease were discovered amongst them. Many of these emigrants are landed on arrival to wait the departure of vessels, and as the Port Sanitary Authority has no jurisdiction above high-water mark, the Whitechapel authorities have been duly warned of the danger, and have taken energetic measures to guard against any introduction, in this manner, of infectious disease.

PENSIONS FOR THE VICTIMS OF SCIENCE.

PROFESSOR DUMAS, the Perpetual Secretary of the Académie des Sciences, has received instructions from the Minister of the Interior for the preparation of a list of all the *savants* who have either died or have been injured during the execution of experiments, or in making investigations in the interests of science. It is the intention of Government to accord a national pension to the widows and orphans of such *savants* who have died, or to those *savants* who have been injured. The list, it may be foreseen, will be a long one.

CONVALESCENT HOMES FOR THE WORKING CLASSES.

A CONFERENCE of delegates of the Hospital Saturday Fund was held at Exeter Hall on Saturday evening last, for the purpose of taking into consideration the desirability of establishing a convalescent home available for working men recovering from illness. Mr. Samuel Morley, M.P., who presided, expressed his thankfulness that the fund last year had proved to be larger than in any previous year. There had existed for some time, he said, in the minds of the active members of the Committee, an idea that it would be a very satisfactory and graceful act on the part of the working-men if they were to secure one or two good convalescent homes, by the seaside or elsewhere, for the benefit of sick members of their class. He had something to do with a little cottage in the country, where some ten persons were housed and cared for without anxiety on their part, and he could assure the meeting that nothing could be better for an unfortunate man or woman just recovering from illness,

than a week or two's absence from work and all cares of the world. But one thing he would urge upon them was, that if this scheme was to be carried out, it must be done by the working-men themselves, and if the meeting should decide upon sanctioning the proposal, strong co-operation would be needed. During the past few years substantial progress had been made by the working classes in the metropolis, and they had full power, if they were so disposed, to carry out such a work as this. A prolonged discussion ensued, the chief point under consideration being whether a separate fund should be established, or a portion of the Hospital Saturday collection taken. Eventually it was proposed and carried that the collectors of the Hospital Saturday Fund be strongly impressed with the necessity of establishing such an institution for convalescents, with a view of stimulating them to use every effort for the purpose of securing funds sufficient to carry it into effect; and it was announced that Mr. Hoare had promised in any case to give twenty guineas for the purpose, which sum he would increase to fifty if other gentlemen would give similar sums. The working-men appear to ignore Mr. Morley's advice, while availing themselves of his services. We do not see any evidence that they at all intend to provide the desired convalescent home at their own expense, but, on the contrary, they would much rather beg for help, or would go for the necessary funds to the puny Hospital Saturday Fund.

THE ENUMERATION OF THE RED BLOOD-CORPUSCLES.

DR. PENZOLD, of Erlangen, published some interesting observations on this subject in our contemporary (the *Berliner Klinische Wochenschrift*, Nr. 32), from which it appears that in healthy new-born infants the number of corpuscles per cubic millimetre exceeds the standard (5,000,000). In four cases the number varied from 6,092,857 to 6,880,000. These observations confirmed the usually accepted doctrine that the corpuscles diminish in the acute diseases. Thus in one very marked case of leukaemia the number had diminished to the extraordinarily low figure of 705,000. In one case, where Professor Heineke had practised intraperitoneal transfusion, an examination of the blood did not show any marked difference in the number of the corpuscles, although the child was greatly benefited by the operation. On the other hand, the number of corpuscles seemed influenced in a case of high temperature treated by cold bathing: thus, before a bath, with a temperature of (about) 104° Fahr., the corpuscles numbered 3,690,000; while after the bath, with a temperature of (about) 102° Fahr., they numbered 4,690,000. The case was one of pneumonia. Previous authors on this subject have mostly recorded diminution in the number, but Dr. Penzold gives us some observations in which there appears to have been an excess, or perhaps we ought to say an increase, in the number of corpuscles. These occurred in cases of severe heart-disease. Thus, the cyanosis of a child with congenital pulmonary stenosis induced the author to examine cases of obstructive disease, with the result that 6.4 to 7.5 millions of corpuscles were found as an average, while in one or two cases as many as 8.8 millions could be counted. Examination of cases of congenital valvular abnormalities (mitral and aortic insufficiency) also showed that the number of corpuscles, though in a less degree, was diminished. On the other hand, after the administration of digitalis, whereby the valvular deficiency was compensated for, the number gradually fell to the normal proportion. It was argued that, as a consequence of the impeded circulation through the heart, the blood at peripheral parts became more concentrated. This hypothesis seemed supported by the fact that after diarrhoea and the consequent loss of fluid, the blood always becomes relatively

richer in corpuscles (Brouardel). Further, Malassez has found that there is normally a larger number of corpuscles in the smaller vessels than in the larger, and in those of the skin than in those of internal organs. Some observations were also made as to the relative number of corpuscles on the two sides of the body. These were undertaken chiefly on account of a suspicion of aneurism of the aorta, whereby some differences in the two radial pulses were thought to be explained. As a result of not less than twenty-six enumerations it was found that there was constantly an increase on the right side. Finally, however, all suspicion of aneurism was cleared up, so that the observation in this sense remained unavailable. But in several cases of old hemiparesis there was found on each enumeration an increase in the red corpuscles *on the affected side*. This was explained by the fact of the slowed circulation through the paralysed parts, as in the case of cyanosis above mentioned. These observations are interesting in themselves, but they are too few to allow us to utilise them for diagnostic purposes. The whole process of counting, as at present practised, is too uncertain; the corpuscles may vary to a considerable extent in the fluid examined, owing to the methods employed, without there being any corresponding difference in the blood of the patient as it circulates within his body.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

THE following are the officers and Councillors for the year 1882 (the names preceded by an asterisk are those of the *new* officers and Councillors):—*President*: *Samuel Lee Rymer, Esq. *Vice-Presidents*: Resident—J. Smith Turner, Esq., Charles S. Tomes, Esq., and *Henry Moon, Esq.; non-resident—J. E. Rose, Esq. (Liverpool), *Walter Campbell, Esq. (Dundee), and *Wm. Doherty, Esq. (Dublin). *Treasurer*: James Parkinson, Esq. *Librarian*: Felix Weiss, Esq. *Curator*: S. J. Hutchinson, Esq. *Honorary Secretaries*: J. Howard Mummery, Esq. (for foreign correspondence); F. Canton, Esq. (Council); T. F. Ken Underwood, Esq. (Society). *Resident Councillors*: T. Charters White, Esq.; G. Wallis, Esq.; W. F. Henry, Esq.; Alfred Coleman, Esq.; J. Stocken, Esq.; *Dr. Joseph Walker; *Isidor Lyons, Esq.; *George A. Ibbetson, Esq.; *Ashley Gibbings, Esq. *Non-resident Councillors*: T. J. Browne-Mason, Esq., Exeter; W. Williamson, Esq., Aberdeen; J. E. Palmer, Esq., Peterboro'; William Fothergill, Esq., Darlington; *Alfred Jepson, Esq., Leamington; *Martin Magors, Esq., Penzance.

RUPTURE OF THE INTESTINE.—After several specimens of rupture of the intestine had been exhibited at the Vienna Medical Society, Prof. Albert observed that he had for some years past laid down the position that no clearer indication for the performance of laparotomy can be furnished than by rupture of the intestine. The difficulties of the operation are undoubtedly very great, consisting in the difficulty of the diagnosis, and in discovering the injured part. It is true that several cases have been recorded in which the patient lived for some days, but still they always terminated fatally. As from expectant treatment nothing is to be hoped, we should endeavour to overcome the difficulties in the performance of the operation. As to diagnosis, rupture of the intestine has the following points in its favour: the violence of the force producing it; the special liability of the rupture to occur at certain parts of the canal, the most usual of these being in the vicinity of the duodenum; and the severity of the pain. According to Beck, in mere contusion of the intestine the pain gradually at times diminishes, and is aggravated by pressure, while in rupture it is continuous. The presence of air in the abdominal cavity also favours the supposition of rupture existing.—*Wien. Med. Woch.*, 1881, No. 47.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

SALFORD.

For many years the annual reports issued by Dr. Tatham have been among the best of their kind, and his twelfth contains not only a record of much good work done, and tables of vital and nosological statistics of the most elaborate description, but reflections and suggestions on the existing state of the law, and on sanitary administration, which make it a really valuable contribution to sanitary literature. Though dealing with the year 1880, it did not appear until last October, this unusual delay being due to the fact that the census of last spring showed that the population had been overestimated to the extent of 8·4 per cent., necessitating an entire revision of all the statistical work.

The health of the borough is far from satisfactory. It is true that though the density of the population has increased by 53 per cent. in fifteen years, the annual rate of mortality is less than it was prior to the year 1870; but Dr. Tatham avoids any delusive self-congratulation by showing that while the actual mortality is from 27 to 28 per 1000, the normal death-rate, calculated on the life-table standard, with due allowance for the proportions of ages and sexes, should be 21·5, which is therefore exceeded by 29·7 per cent. The deaths of infants are 29·2 per cent., and of children under five years 54 per cent., of the total deaths. It would be well if all medical officers of health would thus reduce their populations to one standard; by so doing many a fallacy and self-deception as to the health of towns would be dispelled. He refutes the notion that a high birth-rate necessarily brings with it a high death-rate, by reference to the arguments of Mr. Humphreys, of the General Register Office, who has pointed out that though it implies an excess of young infants whose mortality is, under the actual conditions of urban populations, unavoidably high, it also indicates a corresponding excess of young adults at the healthiest period of life, and a lesser proportion of the aged who will and must swell the tables of mortality. In short, contrary to the current mischievous notion, the tendency of a high birth-rate ought to be positively favourable to a low death-rate. He attributes the fearful slaughter of the innocents in Salford not only to the universal ignorance and thoughtlessness of the poor, and the general consequences of overcrowding, but to the employment of the mothers in factories, and urges the establishment of day nurseries, where for a portion of the twenty-four hours the infants might be properly fed and cared for.

An outbreak of typhus, of which 104 cases were ascertained, and from which twenty-four died, occurred during the year. It was almost confined to the very lowest class, whose habits, irregular and migratory, grossly immoral and intemperate, he thus describes:—"Crouched up in the corners of rooms for warmth, with nothing better for a bed than straw or filthy flocks, these poor wretches lay half-naked on the floor, in a condition piteous to behold. For the most part there seemed to be no distinction of sex or even of family, as regards their distribution in the sleeping-rooms. Husbands and wives, lodgers and tenants, of both sexes, lay huddled together on a common litter, in a state of filth which may truly be described as bestial." Yet these persons would convey one of their number sick of typhus from house to house in order to elude the vigilance of the inspectors; and if a patient were removed to the hospital, instantly take his clothes and bedding to another house or to the pawnbroker's, thus spreading the disease in all directions.

In the common lodging-houses not a single case of infectious disease occurred during the year. Other lodging-houses are regulated by a local Act, prohibiting, among other things, the occupation of a sleeping-room by more than two adults, to enforce which inspections are authorised after midnight.

The public baths have more than fulfilled the hopes of the promoters, no fewer than 131,641 persons having made use of them during the less than nine months that they have been opened.

Every effort is made to prevent the spread of scarlatina,

etc., from child to child in the public schools, the co-operation of inspectors of nuisances, medical men, and teachers being enlisted; and Dr. Tatham makes the judicious suggestion that, in the interest alike of the public health and the schools themselves, the absence of a child on account of infectious disease, not only in his own person, but in other members of the family, "should not entail any loss to teachers or managers,"—in other words, that the clause by which an allowance is made in reckoning attendances for examination, in the event of a school being entirely closed on account of epidemics, should be extended to the case of individual scholars absent on the same grounds. We need scarcely remark that Dr. Tatham strongly advocates compulsory notification of infectious disease, although he has not yet succeeded in obtaining it in Salford.

The report contains much matter of purely local interest, but the reflections suggested by the large number of deaths of persons unseen by any medical man, and therefore, in the absence of suspicion calling for inquest, registered as uncertified (212 in number), many of them children, are so important, and bear so directly on future medical Poor-law reform, that we feel justified in quoting some passages in full:—

"The treatment of the sick poor at their own homes is in its very nature a measure of preventive medicine, for the administration of which the cumbrous and antiquated machinery of the Poor-law is utterly unsuited. If, instead of being, as at present, the officers of the guardians, the Poor-law medical staff were in relation with the sanitary authority, their (the parish surgeons') intimate acquaintance with the habits and dwellings of the poor would in that case make them especially valuable agents in the prevention of disease." Speaking of uncertified deaths he says:—"There is little doubt that, were the circumstances attending these deaths strictly inquired into by a competent medical expert on behalf of the coroner, instances of culpable neglect or of actual crime would frequently be brought to light, which now escape detection." Quoting the observation of the Registrar-General, that inquests and uncertified deaths everywhere occur in inverse proportion, and admitting that the consideration of expense cannot be ignored in urging the more frequent holding of inquests, he concludes as follows:—"The public health interests of the question, however, would be fully satisfied if the duty of inquiring into the causes of all uncertified deaths were relegated to a skilled medical expert; and the peculiar nature of his other duties points to the medical officer of health as the fittest person for the work."

DUBLIN SANITARY ASSOCIATION.

THE ninth annual general meeting of this Association was held on Thursday, January 19, in the Leinster Lecture Hall, Molesworth-street, Dublin. The chair was taken at 4 p.m. by Mr. Jonathan Pim, President of the Association. There was an influential attendance. Mr. John J. Digges La Touche, barrister-at-law, one of the Honorary Secretaries, read the report of the Executive Committee, from which the following are extracts:—

"The Association numbers 230 members, being a decrease of twenty-five as compared with the numbers for the previous year. The income for the year 1881 amounted to £125, whilst the expenditure was £110, leaving a small balance to the credit of the Association.

"*Water Analyses.*—In a former report it was recommended that 'analyses of the water should be made every month under the direction of the Local Government Board, by an analyst not officially connected with the Corporation, and the results published in the Registrar-General's returns as in London.' The Committee had taken early steps to have this recommendation carried into effect, and with this view entered into correspondence with the Local Government Board upon the subject and with the Registrar-General, and were glad to report that they had been completely successful in having the recommendation carried into effect—as since May last arrangements have been made with the Science and Art Department, by which Professor Hartley, of the Royal College of Science, furnishes analyses of the Vartry and

Rathmines waters, which are published in the returns of the Registrar-General, with the consent of the municipal authorities of the city and of Rathmines.

"Compulsory Notification of Diseases."—The Committee reported that they had drawn up amendments to the Bill introduced with this object by Messrs. Gray, Dawson, and Brooks last year. These amendments were received in very good part by the promoters of the measure, and were drawn up so as to carry out the following principles:—(1) That any Bill to provide for the notification of infectious diseases in Ireland should be compulsory and should apply to every sanitary district. 2. That the medical practitioner (if any) in attendance should either notify directly to the sanitary authority the existence of a case of infectious disease, or else hand a notification to the occupier of the house, or person in charge of the inmate. 3. That a fee should be payable only in case of the medical practitioner reporting directly to the sanitary authority. 4. That where no medical practitioner is in regular attendance on a person suspected to be suffering from an infectious disease, within the meaning of the Act, it should be incumbent on the occupier to obtain a certificate from a registered medical practitioner as to the nature of the disease (if any); and in cases where the sick person is entitled to gratuitous medical attendance, said occupier should obtain such a certificate from the medical officer of health of the district in which the sick person resides. The Bill never came to a second reading, but the Committee trust that a Bill more in accordance with their views will be brought forward this coming session, and passed.

"Social Census of Dublin."—A letter was written to the Irish Government, asking them to have a return prepared, in connexion with the census of Ireland, of the number of persons depending upon the various employments or means of support in Dublin, and the Committee have been informed by the Under-Secretary that such a social census is in course of preparation by the Census Commissioners. It is hoped that this return will throw additional light upon the causes of mortality in the city, and assist in probing the high death-rate to its source.

"Domestic Scavenging."—The Committee had been informed by the Cleansing Committee of the Corporation that steps are being taken to carry out a system of domestic scavenging, and that they hope to be able to commence operations next spring, but that the requisition of sites for stables, the erection of these and other buildings, and the provision of carts and other plant, must necessarily take time.

The Report further touched upon the foundation of a Ladies' Sanitary Association during the past year, the special questions discussed in the Public Health Department of the Social Science Congress in Dublin in October last, the inaccessibility of the offices of the Public Health Committee of the Corporation, the appointment of a superintendent medical officer of health, the establishment of much-needed baths and wash-houses, and the more satisfactory state of the health of Dublin during 1881, as evidenced by a fall in the death-rate below the average of previous years.

The adoption of the report was moved and seconded, and, after a discussion, was carried.

The officers for the year having been elected, Mr. La Touche (Hon. Sec.) and Dr. J. W. Moore (Vice-President of the King and Queen's College of Physicians) proposed and seconded this resolution, viz.:—"That this Association is of opinion that, in the interest of the public health of the city of Dublin, it is essentially necessary that the entire time of the Superintendent Medical Officer of Health should be devoted exclusively to the duties of that office, as recommended by the Royal Sanitary Commission." The resolution was carried unanimously.

THE LATE MR. SOUTH.—At the last meeting of the Council of the Royal College of Surgeons it was resolved unanimously that "the Council do hereby express their sincere condolence with Mrs. South and her family in the loss they have sustained by the death of Mr. John Flint South, and do also hereby record their appreciation of the services rendered by Mr. South to the College as a member of the Council and of the Court of Examiners, and during the two periods of his holding office as President of the College."

FROM ABROAD.

REMOVAL OF FOREIGN BODIES FROM THE EAR.

In a clinical lecture delivered by Prof. St. John Roosa at the University of Vermont (*New York Med. Record*, December 10), he observes that foreign bodies in the ear are more likely to come under the notice of the general practitioner than of the specialist, and occur generally in children. The alarm of the friends on their discovery is something almost ludicrous—an alarm which, sometimes participated in by the family attendant, is usually entirely unnecessary. A foreign body in the auditory canal, unlike a foreign body on the cornea or in the eye, is a very harmless thing if properly treated, for even delay is not dangerous. It is true that when the body has entered the cavity of the tympanum it becomes dangerous, but even then its danger as regards life is infinitesimal if only it be left alone. The worst consequences are usually the loss of the middle portion of the ear, and consequently of all acute hearing power. Besides the ordinary bodies thrust into the ear, such as peas, beans, buttons, etc., insects of various kinds may enter; and Prof. Roosa lately removed the dismembered remains of a croton-bug which had been for two years in the ear of a boy, relief being sought in consequence of the mass of wax that had become hardened around the body. We must never believe that a foreign body has been introduced unless we have actually seen it—that is to say, if we have to remove it,—and no person's mere word must be taken in proof of its existence. Very bad results have followed from the neglect of this, which seems to be a fundamental proposition. To such neglect have been due injuries of most important parts of the ear, and even death itself, from attempts at removing foreign bodies which really had no existence. "Therefore, I say again, be sure that there is a foreign body in the auditory canal before you undertake to remove it. In two instances which I now remember—and I am sure that there are others which I do not at this time recall—I have been summoned by competent medical men to remove foreign bodies from the auditory canal when they were not in that part, and probably never were there; and I had great difficulty in convincing the medical men that it was wrong to attempt to remove a thing that could not be seen. Statements of nurses and mothers are often put beyond the testimony of one's own eyes. Now, in medicine, as I have often told you, we are to believe what we can see, touch, or hear; and even all this with some reserve, for our deductions from what we see, or think we see, hear, or touch, are not always correct." For ascertaining whether a foreign body really exists in the canal, the speculum and mirror must be employed; but when the mirror is not at hand, a piece of looking-glass answers very well, and a speculum can be easily extemporised by means of pasteboard.

The removal of foreign bodies is comparatively easy if the ear has not been meddled with; but when unwise efforts have pushed the body into the canal, have lacerated the sensitive integument, have broken the drumhead, have caused bleeding, and worse than that, frightful pain, the task becomes difficult. The foreign body may have been pushed beyond the canal, and be embedded in the tympanum as the result of inflammatory action. The difficulty is great also in consequence of the restlessness and distress of the child. In simple cases Prof. Roosa is of opinion that the use of warm water and the syringe, which he was one of the first to recommend, continues to be our best method, notwithstanding what has been of late written against it.

"I had supposed it to be well established that, in the case of any foreign body in the ear, a thorough attempt, by means of the syringe and warm water, should be made before any other measures are employed. But those of us who believe this—those of us who, as we thought, had undone the damage done by the writers of the dark ages, who attacked a foreign body as if it were a burglar, and hunted it down as if it were a fugitive from justice—have been confronted by passages in recent books from authorities on aural disease, which claim that those who use the syringe are clumsy and bunglers, and that removal by this method is never to be taught. But, after a careful consideration of all the aspects of the

subject, I am not convinced by these recent writers; on the contrary, I think that their teachings are dangerous, and that the employment of forceps and ingenious extractors will take us back to the times of meddlesome surgery. There can be nothing more cleanly, nothing more harmless, than a stream of warm water from the mouth of the syringe, directed upon the foreign body, so that the returning wave shall sweep it out; and it only needs to be fairly considered, in contradistinction to beautifully contrived forceps, admirably arrayed snares, and all other armamentaria of those who sneer at the syringe, in order to meet with your warmest approval. If the case is one that has not been meddled with, a few uses of the syringe, without frightening the little patient, without causing any discomfort, will remove the body. If, however, it has been pushed far in, or has lain long enough to swell, it will sometimes be impossible, after the most thorough trial, to remove it with the return wave of water. It will then be necessary to resort to the most careful surgical interference, and this must be done while the patient is under the influence of an anæsthetic, and the parts must be thoroughly illuminated by means of the mirror. Then it becomes an ordinary surgical procedure for removal of a foreign body, and it is impossible to give any general rules for the performance of so delicate an operation. It is impossible to indicate beforehand what instruments should be employed. The ingenuity of man, which is sometimes as harmful as it is beneficial, has been seriously taxed in the efforts to invent instruments for the removal of foreign bodies in the ear. A very small dressing-forceps, a pair of angular forceps, and a curette will generally be found sufficient for any case, unless it has been meddled with to such a degree as very rarely occurs. If the foreign body has been impacted firmly in the bony parts, it will then become a serious question as to how far interference should go. Delay can always be safely practised, and the best surgical consultation will be needed in such cases. I am speaking to you as to general practitioners, who are to be fully armed to meet the emergencies of ordinary practice. Such a case as one in which a foreign body has been wedged into the deeper auditory apparatus is clearly beyond the province of any general practitioner. Paul of Ægina in 680, reinforced by Von Tröltsch in 1860, recommended an operation for the removal of impacted bodies in the ear, which has lately been performed by myself and Dr. Orne Green of Boston. It consists in the detachment of the auricle from the auditory canal. Such an operation gives very complete access to the cavity of the tympanum, and, despite the objections of theoretical reviewers, it is entirely practicable. The incisions heal readily, and it is by no means a formidable operation. . . . I will now show you the proper method of syringing the ear. There is no difficulty with regard to wetting the clothing or causing any discomfort, if the following steps are taken. In the first place, the patient should be seated comfortably. In the second, if the patient is not old enough to hold the basin under the ear, it should be held by some friend, and well into the glenoid fossa. The first injection or two should be made very gently, and then perhaps with more, but never with great force. The resisting power of the drumhead is very great, as physiological experiments have shown, and there is little danger of rupturing it; but there is danger of violent syringing causing fainting and vertigo, and you should stop frequently to inquire whether or not the operation is disagreeable. In the youngest subjects, if properly done, it will be a pleasant manipulation, and, what is much better than that, it will generally be entirely successful.

"In concluding what I have to say on this subject, I venture to recapitulate—1. Be sure that there is a foreign body in the ear; 2. Remove it by syringing if possible; 3. Wait quietly, if it is so wedged that it cannot be removed in this manner, until you can secure competent assistance, and then proceed with care and caution, and with such instruments as your ingenuity and the ordinary instrumental collections of aural surgeons will furnish."

THE sanitary condition of the town of Guildford being unsatisfactory, the Urban Sanitary Authority have appointed a Select Committee to consider and report as to the appointment of an engineer to carry out a proper system of sewerage.

REVIEWS.

A Treatise on the Continued Fevers. By JAMES WILSON, M.D. With an Introduction by J. M. COSTA, M.D. London: Sampson Low and Co. Pp. 365.

THIS is another of Messrs. Sampson Low and Co.'s subscription series for 1881. Its aim is to give a fuller account of the diseases of which it treats than is to be found in the text-books, without the excessive elaboration of many special treatises, so that the practitioner may obtain what he wants without having to wade through a mass of detail. In the middle course he has chosen the author may fairly claim to have been successful.

The introduction by Dr. Da Costa deals with the general management of fevers, and his remarks are indicative of the experienced physician, and as such, without containing anything new, may be read with advantage by the young practitioner.

The book includes the consideration of more diseases than is usual in works of this kind, and in addition to simple continued, enteric, typhus, and relapsing fevers, we have chapters on influenza, cerebro-spinal meningitis, and dengue.

The important subject of enteric fever occupies more than one-third of the whole volume, and fairly represents the style of the work. In it the author, whilst drawing largely upon nearly all the classical writers upon the subject, has used discrimination. To Jenner, Murchison, Liebermeister, and Cayley, Dr. Wilson is most indebted, but not always with acknowledgment. In the history of enteric fever, mainly from Murchison, he shows how glimmerings of the truth as to the individuality of enteric fever had been continually manifesting themselves for some thirty years before Jenner's time. Dr. Wilson claims for Drs. Gerhard and Pennock, of Philadelphia, the honour of being the first, in America in 1836, to distinctly recognise and describe the clinical and pathological differences between enteric and typhus fever, but it was not until Sir W. Jenner not only confirmed and extended their observations upon this part of the subject, but also showed that their causes were different, that an attack of one did not confer protection against the other, and that one never gave rise to the other, that the controversy was set at rest for ever.

The author has devoted considerable space to the etiology of typhoid fever.

He totally rejects the theory that Murchison advocated so strongly, that the disease may arise *de novo*, and has no doubt that the fever-producing principle is an organised germ belonging to the protomycetes, invariably derived from a previous case of enteric fever, entering the body by the air or ingesta, and there undergoing indefinite multiplication; from thence it is eliminated in the fæces, in which it must undergo certain changes before it is again capable of producing the disease, while it may retain its vitality for years if excluded from the air, ready to spring into activity whenever circumstances are favourable. In support of each of these propositions, evidence is adduced from various sources, but especially from Liebermeister's article in Ziemssen, and Dr. Cayley's Croonian Lectures. Eberth's and Klebs' Observations on the Micro-organisms of Enteric Fever are quoted in a foot-note; but the author, while acknowledging that some such organisms are doubtless the specific cause of the fever, thinks that further observations are needed before the causal relations of these particular forms are established.

How closely Dr. Wilson's views coincide with Dr. Cayley's is frequently apparent; e.g., Dr. Cayley, in his first Croonian Lecture, published in the early part of 1880, says:—"Griesinger relates three cases in which the period was less than twenty-four hours;" and, speaking of Griesinger's own case, goes on—"I only mention this case as it is not unfrequently quoted as an evidence of the occasional occurrence of very short periods. His other two cases are almost equally valueless." And in the work before us Dr. Wilson writes:—"Griesinger relates three instances in which the attack began within twenty-four hours after exposure to the infection. These cases are often referred to, yet appear to me so inconclusive that I cite them to show how little value they possess, rather than as illustrations of very short periods of incubation."

Again, Dr. Wilson observes:—"It is probable that in children the prodromic period is often included in the fever,

for the reason that the nervous system reacts to relatively slight disturbing causes much more strongly than in adults. This may explain the fact that many of the instances of apparently short periods have occurred in children." And we find Dr. Cayley had clothed the same remark in almost exactly the same words:—"In children whose nervous system reacts strongly to slight causes of disturbance I have no doubt that the premonitory stage is often included in the fever; and many of the best authenticated cases of unusually short incubation periods have occurred among children." These are two out of many instances of similar coincidence.

Dr. Wilson is decidedly of opinion that the disease is not directly contagious, and has never known it transmitted to other patients or to attendants. Such an occurrence, though fortunately not common, we have certainly met with both as regards patients in adjoining beds in hospitals, and among nurses, though it is almost impossible to exclude the possibility of infection having arisen from soiled bedding. He quotes several instances from the same source as Dr. Cayley, where enteric fever has apparently arisen from eating decomposed meat, and, like him, thinks that the balance of evidence is in favour of animals having enteric fever, and that it is only from such animals that infection could arise. Examples are quoted of infection through drinking-water, milk, meat, air, the latency of the poison for long periods, its multiplication outside the body, etc.

In the clinical history the author gives, first, a general account of the symptoms in the successive weeks of the disease, and then a more elaborate analysis of the principal symptoms *seriatim*. In discussing temperature, both the Centigrade and Fahrenheit scales are given here and throughout the work, with charts of typical cases taken from different writers; and here again we must allude, as the author does not, to his indebtedness to Dr. Cayley. He says, indeed, alluding to the instability of temperature in this disease—"To use the words of Dr. Cayley, the temperature is *labile*," but so far from this one word being all he owes, the whole of this and the following page is to be found in the concluding part of Dr. Cayley's second lecture, and nearly in the same words, though in a different order. Yet we have no indication of this, unless the quotation of Dr. Cayley's suggestion, that cases which appear to be cut short by remedies are really cases of spontaneous resolution of the inflamed glands without any ulceration, is to be taken for it.

Pulse-tracings taken at different periods of the disease are given, and a table of the differences between the rash of typhus and typhoid fever. Under "Relapses" a *resumé* of the late Dr. Pearson Irvine's observations is given, with several of his temperature-charts; and all this is acknowledged.

The section on diagnosis is somewhat meagre, and is the least satisfactory part of this chapter, very little more than the distinctions between typical cases of the diseases contrasted being attempted. In acute tuberculosis *versus* typhoid this is especially marked; for while stating that the difficulty is often very great, and sometimes insurmountable, Dr. Wilson makes no effort to overcome it, contenting himself with the mere enumeration of the chief points of difference.

His remarks on treatment appear sound, judicious, and sufficiently explicit. With regard to alcohol, he belongs to the moderate school, thinks that from four to eight ounces of spirits should rarely be exceeded, and that up to the end of the second week it is probably prejudicial. He does not check the diarrhoea unless it exceeds three or four motions a day. A full description of the antipyretic treatment is given, but he states that the pyrexia is rarely high enough in America to indicate cold baths, while the number of skilled assistants required still further limits their use. He regards, however, large doses of quinine at intervals of from forty-eight to seventy-two hours as an essential part of the management of all cases with an evening temperature above 104° Fahr.

The doses of drugs are everywhere given both in grains and grammes.

We have followed Dr. Wilson thus closely through his account of enteric fever, as it not only represents the plan of the whole work, but we see more of the author in it than elsewhere. In short, the work is mostly a compilation; but we should not have found fault with it on that account, as it has been done well and brought up to date, had he been more just to the authors whose works he has made such free, but we own such good, use of, that the practitioner will

find the book a handy and reliable one, which he may consult with a reasonable confidence of finding what he most needs when dealing with the continued fevers.

The Young Doctor's Future; or, What shall be my Practice? Being some Account of Medical Appointments—Civil, Naval, and Military,—with Hints upon the Method of General Practice. By E. DIVER, M.D. London: Smith, Elder, and Co., Waterloo-place. Pp. 100.

THE purpose for which this little work has been written is sufficiently well told by the title of it. The contents of it are classed in three sections. The first concerns mainly "The Services": the mode of procedure immediately after qualification is briefly considered, and the young practitioner is well advised to obtain, if possible, some hospital or other appointment which will give him actual experience of the duties and responsibilities of the practice of his profession; facts and considerations are given with regard to certain lines of practice at home and abroad; and then follow statements as to surgeoncies in the principal marine companies and the emigration agencies, and the regulations relating to commissions in the Army Medical Department, the Indian Medical Service, and the Medical Service of the Royal Navy. We do not find anything respecting medical appointments in the Colonial Service, about which inquiries are often made. Dr. Diver will do well to supply all the information he can gain about this service in future editions of his work. The Second Section treats of General Practice, compares the relative attractions and conditions of professional life and work in town and in the country, describes arrangements for facilitating work, and supplies some suggestions with regard to visiting patients, and upon the general duties of practice. The Third Section speaks of Clubs, and of Parish Appointments, and of "several important matters having to do with the well-being and the general comfort of the practitioner." The book will undoubtedly be very useful, and the Second and Third Sections of it will supply much of the valuable practical information and guidance which, in former times, men acquired during their term of apprenticeship.

OBITUARY.

ROGER STURLEY NUNN, M.R.C.S. ENG.

MR. ROGER STURLEY NUNN, so deservedly well known and respected in Colchester, and indeed throughout Essex, died on Monday last, in his sixty-ninth year, at his residence, The Oaks. He was the only son of Dr. Nunn, who had been several times Mayor of Colchester; but the son declined all municipal honours, and devoted himself wholly to his profession. His father gave him a first-class education, on the completion of which he commenced his professional studies at Guy's Hospital, where he was a favourite with teachers and pupils. On the completion of his hospital studies he became a Licentiate of the Society of Apothecaries in 1833; and then visited the Continent, pursuing his studies with great zeal in Paris, and subsequently at Bonn. Returning to England, he became in 1835 a Member of the Royal College of Surgeons, and then commenced the practice of the profession in the house in which he was born at Colchester, and from which he only removed a few years since. Mr. Nunn was Surgeon to the Colchester Hospital, the House of Correction, the Borough Gaol, and Police; he was also Medical Visitor to the Witham Lunatic Asylum, and Surgeon to the 1st A.B. Essex R.V. About two years ago Mr. Nunn suffered from chronic inflammation of the left lung, but two months' holiday in the South of England restored him to health. A few weeks ago, however, he ruptured a bloodvessel, and, notwithstanding the kind care and professional assistance of his partner, and especially of his old friends Drs. Wilks and Rees (of Guy's), he quietly expired on Monday. On the day of his funeral, business was almost suspended in Colchester. Colonel Fitzroy Wilson observed that the professional skill of Mr. Nunn, so widely acknowledged, the untiring attention bestowed on his patients, and the geniality which made his very presence a relief, combined to make up the character of a man universally respected and much beloved, and who will be sorely missed. He leaves a widow and one child.

REPORTS OF SOCIETIES.

THE HARVEIAN SOCIETY OF LONDON.

THURSDAY, JANUARY 5.

HENRY POWER, M.B., President, F.R.C.S., in the Chair.

REMOVAL OF OSSEOUS TUMOURS FROM THE
AUDITORY CANAL.

MR. FIELD read some cases of removal of osseous tumours from the auditory canal. He related several cases in which he had operated successfully on ivory exostoses (hyperostoses) by means of the American dental engine, drilling through the growth, thus making a permanent opening. In other cases of pedunculated osseous tumours (exostoses) made up of soft bone he usually removed them with stump-forceps, such as are used by dentists for the upper jaw. In all cases the patients regained their hearing satisfactorily. In the case of multiple growths, operations were, as a rule, unnecessary, for a triangular space was left between the apices of the tumours, which, growing from opposite sides of the canal, became wedged together, so that the aperture was not completely closed up. Five patients with ivory exostoses were accustomed to bathe regularly in the sea: from this fact he was led to conjecture that this disease, instead of being invariably due to gout, rheumatism, or syphilis, or being influenced thereby, is more often the result of a chronic inflammation of the walls of the external meatus, such as might be produced by sea-bathing, or from the presence of pus in the canal.

Dr. STEPHEN MACKENZIE asked if serious brain-symptoms ever followed these operations.

Dr. BROADBENT mentioned a case of double exostoses in which severe giddiness and sickness occurred when the mucous membrane was congested.

Dr. CLARKE and the PRESIDENT spoke, and

Mr. FIELD, in reply, said he had never met with a case in which serious brain-symptoms had followed the operation.

ENCYSTED DROPSY OF THE PERITONEUM.

Mr. KNOWSLEY THORNTON read a paper on encysted dropsy of the peritoneum. The disease is very rare, but he had met with two cases in his hospital practice in the last three months, and this showed that we must be prepared to diagnose it from other abdominal enlargements—correct diagnosis being all-important in these cases for successful treatment. He alluded to the small amount of information on the subject to be found in either the general or special text-books; quoted at some length a case in Mr. Spencer Wells's work on "Diseases of the Ovaries," which very closely resembled one of his own; alluded to the opinions of Drs. West and Peaslee, and showed how very misleading the statements of the latter are—the errors arising, in his opinion, from an attempt to generalise from very imperfect data. He pointed out that it is important to distinguish this disease from the much commoner condition in which partial collections of fluid occur in the peritoneum around malignant growths. His own cases were then fully recorded. Case 1 was that of a woman, aged forty-five, supposed to have an ovarian tumour, which was also supposed to have ruptured into the peritoneum while she was under the author's observation. Suppression of urine led to tapping of the peritoneum, which gave temporary relief; but she died with uræmic symptoms without further operation. The post-mortem revealed very advanced granular disease of the kidneys, a large spleen, and an encysted dropsy which had become general by breaking-down of adhesions. The ovaries were healthy. Case 2 was that of a young girl in whose abdomen a doubtful collection of fluid existed. It was a very difficult case for diagnosis, but, on the whole, the author leaned to the view that it was a case of flaccid broad ligament cyst. Abdominal section showed that it was an encysted dropsy of the peritoneum. The fluid was removed, the sac carefully sponged out, and the incision closed without drainage. The patient made a good recovery, the intestines gradually reoccupying the space where the fluid had been; and when she was last seen there was no appearance of re-accumulation. In his concluding remarks, Mr. Thornton urged the importance of the faithful record of rare cases,

and pointed out that the knowledge of this disease was still too limited for it to be possible to lay down rules as to diagnosis. He would accept Peaslee's statement that "encysted dropsy of the peritoneum" is always preceded and caused by peritonitis. The causes of the peritonitis are, however, very various. With regard to treatment, he thought it right to open the abdomen and sponge out the sac in any case in which the condition was diagnosed in a patient free from kidney-disease. Drainage was not necessary. He urged the advantage of incision as compared with tapping, and spoke strongly as to the value of Listerism in abdominal section, emphasising his faith by his results in ovariectomy at the Samaritan Hospital in 1881: during the year he had had forty-one cases, had not once drained, and had only had two deaths, both occurring in young patients the subjects of malignant tumour.

Dr. BROADBENT mentioned a case of peritonitis with dropsy limited to the great omentum.

Dr. HARRIS also stated that he had seen a case of localised dropsy following childbirth.

Dr. HAYES said that after Mr. Thornton's success he would be encouraged to operate in these cases, though he felt the whole difficulty lay in the diagnosis.

The PRESIDENT spoke, and Mr. THORNTON replied.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 17.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

THE PRESIDENT referred to the case, recently reported by himself, of the penetration of an ear of grass into the bronchus, and its discharge through the chest-wall. He then read a letter which Dr. Francis Darwin had addressed on this subject to Dr. Norman Moore: he (Dr. Darwin) was familiar with the subject, and referred also to certain grasses and seeds which passed through the skin of the sheep of South America and Australia, and penetrated internal organs. The seeds were doubtless provided with this power in order to allow them to penetrate the soil under changes of temperature and moisture.

THE BONES IN GENU VALGUM.

Mr. PEARCE GOULD showed these specimens. They were removed by amputation from a man who had suffered from destructive inflammation of the knee-joint. The man was forty-three years of age. His knee began to incline inwards when he was eighteen, the deformity gradually increased, and the limb became much weaker. He was taken into the Westminster Hospital, under Mr. Macnamara's care, for synovitis of a severe character. The leg finally had to be amputated. On examining the bones, some chronic rheumatoid arthritic changes were found, in addition to those which had caused the genu valgum. The inner condyle was an inch and a half longer than the outer, and the inner tuberosity of the tibia an inch and a quarter higher than the outer one. He thought the deformity was due to an unusual obliquity of the epiphysal junction. The tibia was curved at its upper extremity, the curve being directed outwards, as if caused by the increased weight which was thrown on the inner tuberosity. The shaft of the bone also was altered—that is, it was cylindrical instead of prismatic. This was due to deposit of bone on its surface. The fibula showed hypertrophic deposits on its surface. The patella was exceedingly small, but not otherwise altered. The foot was in a condition of equino-varus, which was no doubt secondary to the shortening caused by the valgoid condition of the knee. It was the reverse of what Mr. Brodhurst had associated with genu valgum, as often its cause. The obliquity of the shaft at the epiphysal junction confirmed Dr. Mikulicz's view as to the cause of this deformity at the knee.

Mr. SYMONDS asked what had given rise to this unequal growth. He thought it too localised to be rickets. It appeared to him to be an irregular growth at the epiphysal line. He had himself noticed one such case in a child.

Mr. ROGER WILLIAMS referred to the obliterated shin and the flattened condition of the bones.

Mr. WALSHAM asked whether any other bones were affected, and if there were any inflammatory changes in the bones.

Mr. TAY asked whether there was any lengthening of the bones in this limb, as compared with those of the other.

Mr. GOULD replied: The changes were excessive growth at the epiphysial line, and in that sense, therefore, could be called rickety. The altered shape of the bone was undoubtedly due to deposit of bone on some of the surfaces of the shaft. The opposite limb had not been measured, but the measurements should be appended. There were some signs of inflammation present.

SIMPLE CYST OF CEREBELLUM.

Dr. SHARKEY said the patient was aged twenty-two. He came under the care of Dr. Stone, in St. Thomas's Hospital. He had been a fairly healthy person, but had suffered since the age of twelve years from severe headache at times, and during the last three or four years had noticed some slight loss of power in the right arm and leg. Four months previous to admission into the hospital two heavy oaken shutters fell and hit him on the back of the head. Since then he had had constant severe headache, frequent vomiting, and some constipation. His sight had gradually got dim, and he suffered from giddiness. Just before admission he had a convulsive attack. Besides this, it was found on admission that he had inability to walk, though he had no evident paralysis of his limbs while he lay in bed. He had double optic neuritis. He was admitted on October 25, 1878, and died on November 5, 1878, having been attacked at the end with violent headache, vomiting, rigors without elevation of temperature, and finally coma. The post-mortem examination showed the cerebral ventricles full of fluid, and the right half of the cerebellum distended by a fluid tumour. It was not a hydatid, and had no inflammatory thickening of the cerebellar substance around, nor were there any hæmatoidine crystals or other remains of effused blood. The parts surrounding the fluid were simply condensed cerebellar tissue, and the fluid contents were composed of serum and a fibrinous clot. Simple cysts of brain are rare, and their pathology obscure; and the present case, though an interesting specimen of the disease, throws no light on its origin.

SIMPLE CYSTS IN CONNEXION WITH LIVER.

Dr. SHARKEY also showed this specimen. The patient, a woman aged thirty-eight, was admitted into St. Thomas's Hospital, under Dr. Bristowe, for cerebral hæmorrhage, of which she died on the day after. Post-mortem examination revealed no serious disease except that of which she died. A cyst about as big as an orange, with thin walls and slightly turbid fluid contents, occupied the place of the right ovary, and the left also contained a few small cysts. From the lower border of the liver, which was large, but otherwise apparently normal, projected a large round cyst, as large as the head of a new-born child. The wall was thin, smooth, transparent, and had vessels ramifying on its surface. The fluid contents were alkaline, straw-coloured, specific gravity 1008, and contained much albumen and chlorides, but not a trace of bile. Microscopic examination showed that the wall of the cyst was firm fibrous tissue, lined internally by a single layer of flat epithelial cells. Below the fibrous tissue of the cyst-wall was a layer of hollowed-out cavernous spaces, probably bloodvessels. That the cyst originated in, and not externally to, the liver, seems to be shown by the direct continuation of the capsule of the liver into the cyst-wall; by the projection of thinned hepatic glandular substance between its external and internal layers at its junction with the liver; and by the presence of septa, cords, and membranous bands which are seen attached to the internal wall of the cyst. Simple cysts of liver are very rare, and usually not larger than a walnut. No case can be found in the *Transactions of the Pathological Society*, though Dr. Wilks, Dr. Bristowe, and Dr. Pye-Smith have published cases there of cystic degeneration of the liver, which, however, is quite a different condition from that in which solitary cysts are found. The latter are supposed to be due to some obstruction and dilatation of bile-ducts. Dr. Sharkey also showed a similar case of small solitary cyst of liver about as large as a hazel-nut, taken from the body of a child aged eleven months, who was under the care of Dr. Bristowe, and died of pneumonia. In its position on the surface of the liver, the structure of its wall, and the character of the fluid contents, this cyst resembled the larger one. In this case the condition was probably congenital.

Mr. ALBAN DORAN inquired exactly as to the position of these cysts, whether in the liver-substance or beneath the liver-capsule. He thought there might be some analogy between them and certain small cysts which formed in the folds of the broad ligament where it is reflected over the Fallopian tube.

Dr. SHARKEY replied that there could hardly be that analogy between these cysts, as they were formed in the liver-substance. He had not detected any vascular changes which would account for such cysts.

GUMMATA IN SPLEEN.

Dr. SHARKEY next showed a spleen with four large gummatus masses in it, taken from a man past middle life, who died in a surgical ward of St. Thomas's Hospital. Three of the tumours were situated in the substance of the organ; the fourth was in connexion with the capsule. They were all surrounded by a well-defined, transparent, fibrous capsule; in all there were clear indications of concentric growth, and of growth from several centres. Their substance was opaque, yellow, dry, and caseous, but there was no breaking down. Gummata in spleen are rare.

Dr. NORMAN MOORE had lately seen two cases—one in a boy aged sixteen, who died of typhoid; and a second in a man aged seventy.

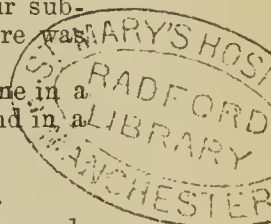
PERFORATION OF COLON IN TYPHOID FEVER.

Dr. NORMAN MOORE exhibited the upper part of descending colon showing a perforated ulcer from a case of typhoid fever. It was removed from a man aged twenty, who died about the forty-third day of typhoid fever, of peritonitis produced by this and another perforation in the descending colon. The large intestine contained many small ulcers. In the ileum were three almost-healed ulcers near the valve. Perforation of the large intestine in typhoid fever is very rare. There is not one distinct case among Hoffmann's 250 autopsies, nor does Murchison give any example of it. In the epidemic of typhoid fever of the autumn, 1881, there were 18 autopsies at St. Bartholomew's. In 6 cases ulceration of the large intestine was found. Death was attributable to the following causes:—Perforation 5, hæmorrhage 1, pyrexia 2, syncope 2, bronchitis 4, changes which had preceded the fever (as amyloid disease) 4; the spleen was enlarged in 16; there were laryngeal ulcers in 5. The earliest case of death was on the twelfth day; in five death was before the sixteenth day; in four it was after the fortieth day.

CASES OF ABSCESS OF THE PANCREAS.

Dr. NORMAN MOORE said that during the years 1881-82 he had examined four cases of abscess of the pancreas, and now exhibited specimens from two of them. (1.) The first specimen shown was from a man aged twenty-four, who was under the care of Dr. Church for typhlitis. There was an abscess behind the cæcum, which had begun on the tip of the appendix vermiformis. The abscess had perforated the cæcum by a minute opening. It was followed by plugging of the vena porta and the pancreatic veins, and by multiple abscess of the pancreas and of the liver. In the inferior vena cava was a small adherent clot. In another case, in a man aged seventy-four, an abscess containing much altered blood occupied the head of the pancreas, and in the inferior vena cava there was also a small adherent clot. (2.) The other case shown was from a man aged twenty-five, a patient of Dr. Gee's, with obscure abdominal symptoms. The head of the pancreas was destroyed, and there was a small abscess in the splenic part. A diffuse peritoneal abscess existed, bounded by the pancreas, spleen, transverse colon, and part of the small intestine and abdominal wall. A fourth case, in a man aged thirty-five, showed a large abscess of the head of the pancreas a little distance from the duodenum. The duct led into the abscess, was patulous, and readily admitted the forefinger. In this last case a calculus was perhaps the origin of the abscess. In two of the others it was due to thrombus, which is probably the commonest cause of abscess of the pancreas. Tulpius has described a case which seems due to thrombus; and those of Petit and of Portal, in which abscess of the pancreas followed operations on the spermatic cord, were probably of the same origin.

The PRESIDENT referred to a paper, published many years ago in the *Archives Générales*, on abscess in the pancreas. One of these cases was really Addison's disease, with bronzing of skin, and the usual train of symptoms. In



reference to the typhoid cases, he asked why in some cases there was diarrhoea, and in others none. The late Dr. Addison believed that diarrhoea indicated disease in the large intestine.

Dr. MOORE said that cases of ulceration in the colon generally died late on in the disease.

Dr. GOODHART referred to ulceration in the larynx. For a long time he had looked for it without meeting with a single case; then he found five cases altogether. Dr. Moore's cases seemed to confirm his own view that this lesion occurred in some epidemics and not in others. It was remarkable, however, that in Guy's Hospital no cases of ulceration of larynx had been observed during the epidemic referred to by Dr. Moore.

Dr. MAHOMED said that at the Fever Hospital he had not observed this lesion. Slight forms of ulceration of the larynx occurred occasionally in all acute fevers.

Dr. MOORE replied.

HEREDITARY CEREBRAL SCLEROSIS.

Dr. PAYNE (for Dr. Harbinson) showed these specimens. They were wishful to have them referred to a special committee for examination and report. Dr. Savage and Dr. Gowers were accordingly appointed.

THREE CASES OF HOUR-GLASS CONTRACTION OF THE STOMACH.

Dr. CARRINGTON said that he had brought these cases before the attention of the Society as being well-marked examples of a condition of considerable rarity. In all three cases the organ was divided into a pyloric and cardiac pouch, united by a tubular constricted position about the size of the forefinger. He had made careful measurements of the pouches in the three cases, both as to length and width, and also as to the amount of fluid they would contain, but he would not weary the Society with these details—he would simply state that in no case was there any dilatation of the organ, and the cardiac pouch was in each case larger than the pyloric. The calibre of the constriction in one case would admit the forefinger, in the other two only an ordinary lead-pencil. What was more important still, was that in neither case was there any sign of antecedent ulceration, progressive or healed, nor any cicatricial contraction competent to produce the deformity. The walls of the tubular narrowed portion were in each case as thin as, or even thinner than, the rest of the viscera. In one case the peritoneal surface on the border of the constriction, to which the lesser omentum was attached, was whitened and thickened somewhat, but this did not extend by any means all round, and the remainder of the tubular portion was quite thin. In another case an abnormal artery, the size of the radial, entered the anterior surface just below the lesser curvature, and there was a small local patch of thickening here, probably due to this vessel, felt between the finger and thumb. Both the preceding specimens had been immersed in spirit in the museum of Guy's Hospital for many years, one of them being presented by Mr. Astley Cooper; but the other one, which was taken from the body of a woman aged seventy-five years, lately brought into the dissecting-room of the same hospital, presented not the slightest trace of thickening at any one part. The point as to which he wished to elicit the opinion of the Society was as to the causation of this condition, and with a view to the elucidation of the question he had searched for similar examples. There were five cases published in the *Transactions* of the Society. In vol. i., a case by Dr. Peacock; in vol. iv., another by Mr. R. R. Robinson; in vol. vii., another by Dr. Quain; in vol. xviii., another by Mr. Marrant Baker; and in vol. xxvi., another by Dr. Greenfield. Finally, there was another specimen in the museum of St. George's Hospital. Mr. Marrant Baker's case seemed to be identical with the specimen shown, as there was no trace of disease, past or present, at this part, either on the inside or the outside. Dr. Greenfield evidently did not consider that cicatrization of ulcers was the cause in his case, for he discussed the bearing of the constriction on the causation of gastric ulcer. The specimen at St. George's Hospital also evidently belonged to the same category as the preceding, inasmuch as, though there were one or two small ulcers present, they were evidently not of a nature to cause the narrowing. It might readily be conceived that ulceration might easily be caused by such constrictions as were present in these cases, as the stomach would

be exposed to constant irritation and abrasion at this point. Dr. Carrington was of opinion that his specimens pointed to reversion to some type found in the lower animals. In rodentia a bi-sacculated stomach is the normal condition; the quadruple stomach of ruminants is well known; and in the horse, although the organ is not constricted, yet the cardiac and pyloric portions are lined by a totally different epithelium, separated by a well-marked line of demarcation. Mr. Robinson's case evidently did not belong to the group of cases under review here. A chronic ulcer had set up a local peritonitis, and the contraction of peritoneal adhesions had drawn up the stomach to the liver, producing the deformity. No doubt the cicatrization of ulcer of the stomach did sometimes lead to deformity; and the cases by Drs. Peacock and Quain were examples in point, but it was difficult to see how it should cause such regular formation of two pouches united by a tubular portion as in the cases brought forward. Probably, however, the truth of the matter was that hour-glass contraction has two causes—congenital malformation and pathological lesion.

LIVING SPECIMENS.—XANTHELASMOID ERUPTION.

Dr. MACKENZIE showed two brothers, the subjects of this disease. Their sister also suffers from it, as did their paternal grandfather.

RECENT SPECIMEN.—ACUTE YELLOW ATROPHY OF SKIN.

Dr. GOODHART showed this specimen removed from the body of a child two years old. The child had suffered from jaundice during one month.

FOURTH INTERNATIONAL CONGRESS OF HYGIENE.—This Congress will be held in Geneva, from the 4th to the 9th of September, 1882. The third Congress of Hygiene, which met at Turin in 1880, selected Geneva, by acclamation, as the seat of the fourth Congress. The Swiss Federal Council, the Genevese Councils and people, gratified by so flattering a decision, are preparing to welcome the hygeists, both Swiss and foreign, who may attend this scientific meeting. The Congress will meet on the 4th, and sit till the 9th of September, 1882. The Geneva Committee, entrusted with its organisation by the State Council, hope to make it worthy of its predecessors, the Congresses of Brussels, Paris, and Turin. Supported by the Swiss National Committee, they appeal to all persons who, by their writings, their position, or personal experience, strive to elucidate the theory of hygiene and to practise it. With the assent of the International Committee of the Paris Congress of Demography in 1878, they have resolved that a Demographic Section shall supplement the Congress of Hygiene. The hygeists and demographers of all countries are invited to bring to the Geneva Congress the contribution of their learning and labours; and, together with the boards of health, the scientific and sanitary societies, to submit as soon as possible to the Managing Committee the questions they may think worthy of treatment by the International Congress. Several essays have been announced, and as soon as a full list of them shall have been obtained, the Committee will apprise the public of their drift, calling special attention to the main points of investigation. An Exhibition of books, plans, and instruments of all kinds concerning hygiene and demography will be opened in Geneva on September 1, and last till September 30. Authors, inventors, and manufacturers, of every nationality, are invited to give notice, at their earliest convenience, of their intention to attend the Exhibition. The Committee will endeavour to obtain a reduction of tariffs both for members of Congress and for the objects sent to the Exhibition. The following is the Managing Committee:—*President*: H. Cl. Lombard, M.D., Vice-President of the International Congress of Medical Sciences held in Geneva in 1877. *Vice-President*: J. L. Prévost, M.D., Professor of Therapeutics, Dean of the Faculty of Medicine. *General Secretary*: P. L. Dunant, M.D., Professor of Hygiene. *Assistant-Secretaries*: D'Espine, M.D., Professor of Internal Pathology; G. Haltenhoff, M.D., University Lecturer on Ophthalmology. *Members*: V. Gautier, M.D., Head Physician of the Butini Infirmary; M. Julliard, M.D., sen., sometime Medical Inspector of Public Health; M. Denis Monnier, Professor of Biological Chemistry; E. Rapin, M.D., sometime President of the Medical Society. Manuscripts and prints that concern the Congress should be directed to Professor Dunant, M.D., General Secretary, Geneva.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 19th inst., viz.:—

Anness, Frederick R., Ipswich.
Brinton, R. Danvers, M.B. Cantab., College-terrace, Belsize-park.
Cockburn, Lestock W., Totnes, Devon.
Fuller, Andrew, Wolverhampton.
Hewer, Joseph L., Highbury New-park.
Heyd, Herman E., M.D. McGill, Brantford, Ontario, Canada.
Hurry, J. Boyd, B.A. Cantab., Wanstead.
Joseph, James F., L.K. & Q.C.P.I., Warrington, Lancashire.
Scott, Bernard C., Anerley.
Taylor, Charles A. A., Acton.
Utting, George, Hockering, Norfolk.
Voisey, Clement B., L.S.A., Manchester.
Webb, Malcolm, Manchester.

Seven candidates were rejected. The following gentlemen passed on the 20th inst., viz.:—

Booth, Edward H., L.S.A., Worthing.
Clegg, John H., L.S.A., Oldham, Lancashire.
Fotherby, Henry A., L.S.A., Finsbury-square.
Giles, William B., L.R.C.P. Edin., Stanton-on-Wye.
Honman, Andrew, L.S.A., Weymouth-street, W.
Limont, James, M.B. Edin., Alnwick, Northumberland.
Maher, William O., M.D. Queen's Univ. Ire., Sydney, N.S. Wales.
Mortimer, John D. E., L.S.A., Clifton, Bristol.
Payne, Frank C., Halstead, Essex.
Rout, Charles, L.S.A., Coldharbour-lane, S.E.
Spicer, Robert H. S., L.S.A., Cambridge-street.
Thomas, G. T. H., L.S.A., Gloucester-street, Warwick-square, S.W.
Todd, Charles E., Adelaide, South Australia.

Ten candidates were rejected. The following gentlemen passed on the 23rd inst., viz.:—

Bousignac, Joseph L., L.S.A., Trinidad.
Bunn, Charles G., L.S.A., Elm Tree-road, St. John's-wood.
Coveney, John, L.S.A., Maidstone.
Douty, J. Harrington, L.S.A., Salisbury.
Goddard, Walter H., L.S.A., Norfolk-crescent, W.
Mattei, Edward, M.D. Malta, Malta.
Payne, John W., L.S.A., Pentonville-road.
Pigott, Peter, L.S.A., Dulwich.
Rice, Richard, L.S.A., Barrington, Gloucestershire.
Wadai, Dhanjibhai R., L.R.C.P. Edin., Bombay.
Watson, Archibald, M.D. Paris, Paris.
Wedmore, Charles E., B.A. and M.B. Cantab., Bristol.
Williams, Walter T., L.S.A., Williton, Somerset.

Six candidates were rejected, making a total of forty-five out of the 124 examined, including fifteen who failed in Obstetrics. It is stated that as many as *forty-three* of these candidates had been previously rejected once, thirteen twice, two thrice, and one four times; and many of these were again rejected, including the unfortunate four times examined.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 19:—

Banawala, Hormasjee Edaljee, The Grove, Ealing, W.
Booth, Edward Hargrave, Guy's Hospital.
Fuller, Herbert Knowles, Ramsdale, Basingstoke.
Nicholls, Frederick Lucius, Bury St. Edmunds.
Swallow, Francis McDonald, Church-road, Forest Hill.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Davis, John Warren, London Hospital.
Hubbard, Frederick Edmund, Guy's Hospital.
Tibbles, John Thomas, Charing-cross Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

LOUGH, JOHN J., M.B., etc.—Medical Officer to the City and East London Dispensary, *vice* E. A. Snell, M.B., etc., resigned.

WILLIS, JULIAN, M.R.C.P.—Visiting Physician to the Infirmary for Consumption and Diseases of the Chest and Throat, Margaret-street, Cavendish-square, W.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Fleet-Surgeon Dugald McEwan, M.D., has been appointed to the rank of Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, with seniority of January 20.

BIRTHS.

GRAY.—On December 21, 1881, at Cinnamara, Jorehaut, Assam, the wife of Edward Gray, M.B., C.M., of a daughter.

LISTER.—On January 19, the wife of C. H. Lister, M.D., Addiscombe-road, Croydon, of a daughter, stillborn.

MOORE.—On January 23, at the Warden's House, The College, St. Bartholomew's Hospital, the wife of Dr. Norman Moore, of a son.

MARRIAGES.

BROOKE—BRADLEY.—On December 14, at Howrah, Calcutta, James Stuart Brooke, L.R.C.S.I., L.K.Q.C.P.I., to Caroline Forster, youngest daughter of William George Bradley, Esq., of Undercliffe, Killiney, co. Dublin.

CAZALIS—LUTTMAN-JOHNSON.—On January 20 and 21, at Cannes, France, M. Joseph Cazalis, M.D., of Cannes, and Deputy-Inspector at Mont-Dore, to Catherine Frances, second daughter of the late Rev. H. W. R. Luttman-Johnson, of Binderton House, Sussex.

CLARKE—MORLEY.—On January 24, at Brighton, Robert Henry Clarke, B.A., M.R.C.S., to Charlotte Frances Culpeper, only child of the late William Hooke Morley, Esq., barrister-at-law.

DRUITT—TUPPER.—On January 24, at St. George's, Campden-hill, Robert Drutt, jun., of Christchurch, Hants, eldest son of Dr. Drutt, to Alice May, youngest daughter of the late Daniel Tupper, Esq.

FERGUSON—CUMBERBATCH.—On January 18, at Sloane-street, S.W., Robert Norman Ronald, eldest son of the late Robert Ferguson, M.D., to Rose Geraldine, youngest daughter of L. T. Cumberbatch, M.D., of 25, Cadogan-place, S.W.

ORR—HILL.—On January 11, at Wollaston, James W. Orr, M.D., to Emilia Jané, second daughter of the late Major Hill, of Wollaston Hall, Wellingboro'.

SHAW—EVANS.—On January 24, at Westminster, William Shaw, M.B., M.R.C.S., of Maidstone, to Maria, youngest daughter of the late Robert C. Evans, Esq., of New York.

SMITH—KEY.—On January 21, at Holborn, W. Towers Smith, M.R.C.S., of Kensington, to Jessie Octavia, daughter of the late Joseph Key, Esq., of Upper Phillimore-place, Kensington.

SMYTH—SUNDERLAND.—On January 18, at Parkstone, Hatton Smyth, B.A., M.D., of Pelham House, Poole, to Mary Susan Sunderland, of Swain's Hall Villa, Hereford.

TURNBULL—RUSHBROOKE.—On January 19, at Bury St. Edmunds, Captain H. F. Turnbull, South Lancashire Regiment (late 40th Foot), only son of F. Turnbull, M.D., late Bengal Army, of Gloucester-place, Hyde-park, to Anita Mary Geronima, second daughter of Captain W. H. Rushbrooke, R.N., of West Hill, Bury St. Edmunds.

WHITE—READ.—On January 24, at Kensington, William Ernest White, Esq., of Highgate, to Margaretta Pine, only daughter of Henry Read, M.D.

WILLIAMSON—CROOK.—On December 13, at Buenos Ayres, William Rowe Williamson, Esq., of Concordia, South America, to Evelyn Mary, elder daughter of John Evelyn Crook, M.D., of Northfleet, Kent.

DEATHS.

ALFORD, SAMUEL, M.R.C.S., youngest son of Henry Alford, F.R.C.S., of Taunton, at 1, Richmond-road, Southsea, on January 21, aged 38.

BENNETT, ELIZABETH GRACE, wife of T. Jarvis Bennett, M.D., at Kensington-park, London, on January 24.

BODDY, SARAH HARRIOTT, wife of William Barnard Boddy, M.R.C.S., at 111, Camberwell-road, on January 18, in her 80th year.

JEFFERY, JOHN DACIE, M.R.C.S., at 10, Pierpoint-street, Worcester, on January 19, aged 71.

MACILWAIN, GEORGE, F.R.C.S., M.R.I.A., at Matching, Harlow, Essex, on January 22, aged 85.

MANWELL, wife of George Fredk. Manwell, Esq., and eldest daughter of H. Stavely King, M.D., at Levenshulme, on January 19.

STARR, THOMAS HENRY, M.D., at Richmond, Surrey, on January 20, in his 72nd year.

SUTCLIFFE, JOHN, L.R.C.P., M.R.C.S., of 108, Denmark-hill, S.E., at Belap, Crystal Palace-park, on January 12, aged 36.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Candidates must be registered to practise in medicine and surgery, and acquainted with the Welsh language. Applications, with testimonials, to be sent to the Secretary, on or before February 11.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S-INN-ROAD, W.C.—Assistant-Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and must produce certificates of having attended the practice of some ophthalmic institution for at least six months. Testimonials to be sent to the Secretary, on or before February 4.

CRAIGLOCKHART HYDROPATHIC, NEAR EDINBURGH.—Resident Physician. (For particulars see Advertisement.)

GAINSBOROUGH FRIENDLY SOCIETIES MEDICAL ASSOCIATION.—Resident Medical Officer. Candidates must be registered and fully qualified, not under thirty and not over fifty years of age. Copies of recent testimonials, certificates of registration, and photo, to be sent to Henry Cuckson, Secretary, Back-street, Gainsborough, from whom all further information can be obtained.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, PENDLEBURY, AND GARTSIDE-STREET, MANCHESTER.—Physician. (For particulars see Advertisement.)

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN-SQUARE, BLOOMSBURY.—Resident Medical Officer. Candidates must possess a medical and surgical qualification. Particulars of the duties, etc., may be obtained by letter of B. Burford Rawlings, Secretary, or personally, between 2 and 3 p.m. Application to be sent in not later than February 2.

LIVERPOOL EYE AND EAR INFIRMARY.—House-Surgeon. (*For particulars see Advertisement.*)

QUEEN ADELAIDE DISPENSARY, POLLARD-ROW, BETHNAL GREEN.—House-Surgeon. (*For particulars see Advertisement.*)

ST. MARYLEBONE GENERAL DISPENSARY, 77, WELBECK-STREET, CAVENDISH-SQUARE.—Honorary Physician. Candidates must be Fellows or Members of the Royal College of Physicians, London, or graduates in medicine of one of the Universities of the United Kingdom, and not engaged in the practice of midwifery or pharmacy. Applications and testimonials to be sent to Frank Stokes, Secretary, not later than January 30, and candidates must attend at the Dispensary on February 1, at five o'clock precisely.

WEST HERTS INFIRMARY, HEMEL HEMPSTEAD.—House-Surgeon and Dispenser and Assistant-Secretary. Candidates must be qualified in medicine and surgery, duly registered, and unmarried. Applications, with testimonials and certificates of registration, to be sent to the Secretary, on or before February 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

*. The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Berwick-on-Tweed Union.—Dr. John Alexander Macdonald has resigned the Berwick District: area 5790; population 9155; salary £45 per annum.

Wantage Union.—Mr. C. G. Symons has resigned the Hendred District: area 12,135; population 2212; salary £50 per annum.

Williton Union.—Mr. J. H. Bartlett has resigned the Porlock District: area 16,642; population 1096; salary £50 per annum.

APPOINTMENTS.

Brackley Union.—Edwin J. Scott, L.K. & Q.C.P. Ire., L.R.C.S. Ire., to the First District.

Chorley Union.—Miles Melbourne Williams, M.R.C.S. Eng., L.R.C.P. Lond., to the Brindle District.

Frome Union.—William G. Evans, L.R.C.S. Ire., L.R.C.P. Edin., to the Second District.

Hendon Union.—Edward William Flemyng Stiven, M.D. and L.R.C.S. Edin., to the Harrow District.

Newport Pagnell Union.—F. W. D. McGachen, L.F.P. & S. Glasg., L.S.A., to the Sixth District. W. H. Ryan, L.R.C.S. Ire., L.K. & Q.C.P. Ire., to the Seventh District.

Uxbridge Union.—Walter Hardin, F.R.C.S. Eng., L.K. & Q.C.P. Ire., to the West Drayton District.

Wareham and Purbeck Union.—Joseph H. Webster, M.R.C.S. Eng., L.R.C.P. Edin., to the First Wareham District.

Wilton Union.—Thomas A. J. Cocksedge, M.R.C.S. Eng., L.S.A., to the Bishopstone District.

SOCIÉTÉ FRANÇAISE D'HYGIÈNE.—We have to announce that this Society proposes two subjects for essays in 1882. I. Hygiene and Physical Education of Children from Six to Twelve Years old: home life, school life, country life, and life in the workshop, to be discussed separately. II. Personal and Domestic Cleanliness: a study of personal and domestic cleanliness of rich and poor of both sexes and all ages, in town and country. The general rules applying to both competitions are as follows:—1. The essays not to exceed thirty to forty pages of printed matter in 12mo. 2. The essays to be sent, distinguished only by a motto, to the office of the Society, 30, Rue du Dragon, before September 1, 1882. (Candidates who make themselves known in any way shall be excluded from the competition.) 3. The successful essays become the property of the Society, and will be published either *in extenso* or in an abridged form, the names of all successful competitors to be in the title-page of the published pamphlet, which will be largely circulated. The above are two distinct competitions, in each of which a gold, silver, and two bronze medals are offered.

TRICHINISED MEAT.—M. Delcroix, after describing (*Rev. de Thérapeutique*, January 15) some experiments he had made upon himself by eating food, of which pork swarming with trichinæ formed a part, observes that these proved innocuous because the meat he partook of was well cooked. And in this he considers the safety of the public really consists, and not in reliance on the efficiency of flesh inspectors. When trichinæ abound in meat, any inspector, it is true, can detect them with the microscope; but in the interval between the period when the germs are introduced into the stomach of the pig and when the trichinæ have become multiplied and diffused over the economy, a considerable but undetermined time passes, during which only certain muscles may become infected by a restricted number of trichinæ, which the most skilful inspector may fail to detect. Inspection, therefore, however conscientious and experienced, is quite unable to affirm that trichinous pork shall never be sold for consumption. The only guarantee for safety is abstinence from the use of pork or other meat liable to infection, or the complete cooking of such food. Dependence on inspection is quite fallacious.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 21, 1882.

BIRTHS.

Births of Boys, 1332; Girls, 1297; Total, 2629.
Corrected weekly average in the 10 years 1872-81, 2756.9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	856	844	1700
Weekly average of the ten years 1872-81, } corrected to increased population ...	925.5	913.7	1839.2
Deaths of people aged 80 and upwards ...	...	...	53

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	668993	11	3	4	19	...	2	1	1	1
North ...	905677	4	7	5	18	...	5	...	1	1
Central ...	281793	3	...	1	6	...	3	...	1	1
East ...	692530	4	9	2	35	...	5	...	2	2
South ...	1265578	20	27	9	5	42	...	4	...	6
Total ...	3814571	20	49	23	17	120	...	19	1	11

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	30.644 in.
Mean temperature ...	...	...	...	...	...	33.2°
Highest point of thermometer ...	...	...	...	...	...	43.2°
Lowest point of thermometer ...	...	...	...	...	...	29.7°
Mean dew-point temperature ...	...	...	...	...	...	34.2°
General direction of wind ...	...	...	...	...	...	Calm and variable.
Whole amount of rain in the week ...	...	...	...	...	...	0.00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Jan. 21, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Jan. 21.	Deaths Registered during the week ending Jan. 21.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London ...	3891078	2629	1700	22.8	43.2	29.7	36.2	2.33	0.00	0.00
Brighton ...	109573	76	55	26.2	45.0	27.6	36.0	2.22	0.00	0.00
Portsmouth ...	129875	77	45	18.1	...	...	...	...	...	...
Norwich ...	83821	61	35	20.6	...	...	...	...	...	...
Plymouth ...	74449	66	38	28.6	51.8	32.4	42.6	5.90	0.00	0.00
Bristol ...	210134	154	81	20.1	46.3	29.5	37.5	3.06	0.01	0.03
Wolverhampton ...	76756	40	30	20.4	44.1	29.2	36.3	2.39	0.01	0.03
Birmingham ...	403532	268	161	20.6	...	...	...	...	...	...
Leicester ...	126275	75	41	16.9	44.2	29.0	36.9	2.72	0.01	0.03
Nottingham ...	193573	149	108	29.1	43.0	26.6	36.2	2.33	0.08	0.20
Derby ...	83587	58	25	15.6	...	...	...	...	...	...
Birkenhead ...	86532	45	27	16.3	...	...	...	...	...	...
Liverpool ...	560283	393	265	24.7	44.4	34.5	40.0	4.44	0.00	0.00
Bolton ...	106767	74	33	16.1	...	...	...	...	...	...
Manchester ...	340316	269	145	22.2	...	...	...	...	...	...
Salford ...	184001	131	78	22.1	...	...	...	...	...	...
Oldham ...	115572	68	74	33.4	...	...	...	...	...	...
Blackburn ...	106460	79	54	26.5	...	...	...	...	...	...
Preston ...	97656	60	45	24.0	...	...	...	...	...	...
Huddersfield ...	83418	46	50	31.3	...	...	...	...	...	...
Halifax ...	74713	38	29	20.3	...	...	...	...	...	...
Bradford ...	183101	111	66	18.3	46.6	34.6	40.6	4.78	0.01	0.03
Leeds ...	315998	282	125	20.6	47.0	35.0	40.8	4.89	0.05	0.13
Sheffield ...	230516	212	140	25.1	49.0	29.0	37.7	3.17	0.00	0.00
Hull ...	158357	109	67	22.0	42.0	30.0	37.0	2.78	0.00	0.00
Sunderland ...	119065	89	50	21.9	54.0	35.0	43.5	6.39	0.03	0.08
Newcastle ...	147626	106	58	20.5	...	...	...	...	...	...
Cardiff ...	83724	59	34	20.5	...	...	...	...	...	...
For 28 towns ...	8455308	5772	3659	22.6	54.0	26.6	38.6	3.67	0.02	0.05
Edinburgh ...	232440	144	82	18.4	49.5	37.4	43.8	6.53	0.00	0.00
Glasgow ...	514043	379	250	25.4	52.0	38.0	45.5	7.50	0.00	0.00
Dublin ...	348293	197	225	33.7	53.8	29.3	43.0	6.11	0.03	0.08

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30.64 in. The lowest reading was 30.46 in. at the beginning of the week, and the highest 30.79 in. on Wednesday morning.

NOTES, QUERIES, AND REPLIES:

He that questioneth much shall learn much.—Bacon.

HOT WATER IN DISEASES OF THE EYE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—At page 73 you refer to the value ascribed to the use of hot water in diseases of the eye, by Dr. Connor. The mode of applying the water—viz., splashing it up by the aid of the hand—as described by Dr. Connor is far less effectual and convenient than one I have adopted for many years, viz., filling a tumbler with hot or cold water, and bending down the head so as to insert the eyeball into the bath, and opening and shutting the eye thus placed under the fluid. By this means all morbid secretions are washed away, and the water, be it hot or cold, comes most effectually into contact with the eyeball, producing its physiological effects.

I am, &c., RICHARD NEALE, M.D. Lond.

63, Boundary-road, South Hampstead, N.W., January 24.

AN ANSWER TO DR. HARLEY'S PLEA FOR A "SPELLING REFORM."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I give Dr. Harley credit for good intentions in advocating his "Spelling Reform," but I cannot help feeling that they are only paving the way to what many must agree with me would be an orthographical *hel*. I hope he will bear with me, and not consider me *flipant* in my remarks, even if he thinks they may provoke a foolish laugh. I know that ridicule is not the test of truth, but it is a poor truth which will not bear ridicule, and Dr. Harley should not be too sensitive. People do not laugh at a racehorse, but an apparent "hobby" must expect a few rough remarks until it can prove its merits. Assertion is not argument, and I believe Dr. Harley asserts too much. I cannot agree with his conclusions, because I consider his premises fallacious. He would have us believe that the old spelling-books have induced untold mental disease, and he warns us "that the mental well-being of millions of children yet unborn" must be influenced by the way his "National Spelling Reform" is now treated. If a medical man wrote of "midwifery forceps" in this assertive style, I might listen, but why should I hold him as an authority on the destructive effects of the old-fashioned spelling-books? Why should spelling be held up to our astonished eyes as the bane of youth, the slayer of children? Why not arithmetic? There is rhyme, if not reason, to suspect that fearful science! We all know "the cry of the children"—

"Multiplication is vexation;

Division is as bad;

The Rule of Three it puzzles me,
And Practice drives me mad."

But who ever knew a child go mad from learning words of three or even four syllables? But the Doctor not only claims that his reformed *speling* would empty the lunatic asylums—he also describes it as an *International* benefit. He thinks we shall all soon speak alike; and when we do, why not all spell alike? We shall all utter the same sounds, and why not represent the sounds by the same letters? In his own words, "the differential *patois* of our peasantry is now gradually coalescing into one comon form of national tongue." *Very gradually indeed*, I should say. I for my part hardly understand a Yorkshire peasant; I do not at all comprehend a Devonshire agriculturist; and the Sussex dialect is a wearisome puzzle. The Doctor looks to trains and mutual intercourse to rub down provincialisms of speech. In the good time coming, when cockneys are flying north at sixty miles an hour in trains, every ten minutes, at one farthing a mile, and Devonshire savages and North-country tykes are invading the metropolis in countless millions, no doubt the sounds of many words will be modified; but it will be the work of centuries to reduce *all* the jarring notes to one harmonious sound, and it is not to be supposed we are going now to take on trust Dr. Harley's way of "speling" any doubtful word of the future. His own grandchildren would never allow that. The Doctor forgets the claims of the Australians, the New Zealanders, and the Yankees to have their soft tones introduced into the musical mystery of international sounds. Unfortunately, the Doctor is in such a tremendous hurry that he cannot wait. Either the British *speling* must be at once reformed, or the language itself must perish! He says the Roman Latin perished in consequence of its imperfections! Kikero could not spell, I suppose, and called himself Cicero; and Cæsar was badly brought up, and spelt his name as Kæsar! Well, if the Doctor thinks that Rome fell because the Romans did not go in for a *speling* reform, I cannot help it. It is a new view of history to reflect that Cæsar fell at the base of Pompey's statue in consequence of the limited liability of the Roman tongue. The Doctor, methinks, lays too great stress on words, and too little on things. Depend upon it, if Rome had remained true to herself, she would have retained her tongue. It was not her slipshod spelling which gave the Barbarians power to muddle the Roman Latin with Teutonic grunts! It is my belief that if you had a recognised invariable pronunciation, dictated by Dr. Harley, to-day, he would find it necessary to change his "speling"-book every year for the next century. Can he control the fashion of speech? Can he make a military commander shout anything but "Shoulder hup!" instead of "Shoulder arms!" Can he make an Israelite say, "Any old clothes?" Not he: for the wily wanderer knows the ease and comfort of "Any old clo'?" Did Dr. Harley never hear of the Royal fashion which made the Prince Regent and his courtiers *obleged* when they should have been "obliged"? Has the voice of the dandy never drawled out a *yaas* instead of "yes" in the Doctor's presence? Has the cockney modified the sound of "a" into "ai" within the last few years without the Doctor's observation? I hold that each and all of these offenders in pronunciation are brought to book when they write by our illogical dictionary with its incorrect spelling. We may not know what they mean when they speak, but what they write is at least intelligible. Dr. Harley would take away our present standard, and give us a tuning-fork by which all our sounds are to be gauged; and, what is worse, he is to be the present final judge of the music of the national voice of the future. The time may come, but not yet—"bum-by," as they say here (although they spell it "by-and-by," which certainly does not represent the sound, but is decent enough for nineteenth-century mortals). I am, &c., B. BUTTER.

A CORRECTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—On looking over the names of those who passed the Primary Examination of the Royal College of Surgeons on the 3rd inst, I find you have put my name "R. F. Thornton Perkins," instead of "R. F. Thornton Perkin"; will you kindly have it altered. I am, &c.,
Coten Lodge, Warwick, January 23. R. F. THORNTON PERKIN.

A Subscriber.—The papers set at the examination in question will be found in the Calendar of the London University. They are not published in any medical journal.

Consulting a Chemist.—According to a statement in a daily paper, at the Kidderminster County Court a confectioner sought to recover £50 damages from a druggist for neglect and careless treatment of his finger, by which his hand had become permanently injured. Last October the plaintiff had a white spot on the forefinger of the right hand, and he showed it to the defendant, who said there was no necessity to go to a doctor. Defendant lanced it and supplied him with linseed with which to poultice it. The druggist afterwards lanced the finger a second time, but as no good result followed, plaintiff consulted two surgeons, and ultimately the finger was amputated. No money was paid by the plaintiff, except for the linseed. His Honour held that the defendant performed the two operations in expectation of being paid, and gave a verdict for the plaintiff for the whole sum claimed.

Drowning in Inland Waters, 1879.—From the last Parliamentary return it appears that in 1879 the loss of life by drowning in these waters in the United Kingdom was 369. As a knowledge of the art of swimming progresses these casualties should show a marked diminution.

"The Mason College" and Vivisection.—The statement by the Honorary Secretary to the Society for the Abolition of Vivisection, that "the Mason College" has followed the example of Trinity College, Dublin, in regard to the prohibition of all experiments upon living animals, the trustees having refused to take steps for obtaining a licence, is contradicted. It appears that the trustees of the College have not decided, or even discussed, the question. An application was made to them on the subject, but they have postponed the consideration of it for the present.

An Infectious Diseases Hospital for Rochester and Chatham.—A Local Government Board inspector has held an inquiry as to a proposal of the joint Hospital Board to borrow £5000 for the purchase of a site and the erection of the hospital. There was no opposition.

The Escaped Patient from the West Hulme Hospital, Oldham.—In reference to the escape of a patient, whilst suffering from confluent small-pox, from this hospital, already noticed by us, a relative of the unfortunate man applied, a few days since, to Mr. Molesworth, the coroner, to demand a public inquiry into the circumstances, and also into the conduct of the officials. It will be remembered that the man died from exposure consequent upon the escape. The coroner granted the application for the inquiry, but said the examination of the body was not necessary. This inquiry has since been held, at which Dr. Sutton, the Medical Officer of Health, attended, and objected to the investigation, alleging it was not legal, as the body had not been exhumed. But it was decided that the evidence should be taken, whereupon Dr. Sutton left the room. Several of the jury felt that a Government inquiry should be held. Ultimately a verdict was returned to the effect that greater supervision should be exercised in the management of the West Hulme Hospital, and the conduct of Elijah Stott was commended, who, when the police refused to interfere, took the deceased to the Hospital in his cart.

The Student.—Inwardly digest these Chinese proverbs: "Learning cannot be gulped down." "Every subject must be chewed to get out its juice." "Good students are like workers in hard wood." "Most things are easy to learn, but hard to master."

The Uneducated in the United States.—A summary of an official table has been published, giving the statistics of illiteracy in the United States, from which it appears that in New York the percentage of the total population who cannot read is 3.23, in Pennsylvania 3.41, in Connecticut 3.37, in Massachusetts 4.24, in New Hampshire 3.45, in Vermont 3.91, in Rhode Island 6.31; while the figures for Maine are only 2.80. The unfavourable percentage shown in Massachusetts and Rhode Island is stated to be caused by their factory system and the importation of cheap labour from Canada and other parts of the world.

Medical Sanitary Officer, Cape Town.—The Town Council of Cape Town have decided to appoint a medical sanitary officer with full powers to act for the benefit of the health of the city.

An Inquirer.—The Crimean Sanitary Commission consisted of three gentlemen, viz., Dr. Sutherland, Dr. Milroy, and Mr. Rawlinson, a civil engineer. They proceeded to the Crimea in April, 1855, taking with them upwards of thirty skilled assistants and labourers, together with such implements and apparatus as were necessary for their work. Of the results of their labour Miss Nightingale said, "It is the whole experiment of sanitary improvement upon a colossal scale. . . . We had in the first seven months of the Crimean Campaign a mortality of 60 per cent. per annum among the troops from disease alone. . . . We had in the last six months a mortality not much greater than among our healthy Guards at home."

G. G., Marylebone.—Practically, anyone who pleases can deal in poisons so long as they are disguised under the name of patent medicines. In France every such medicine is submitted to an accredited body before its sale can be lawfully carried on.

Metropolitan Charities.—According to the "Classified Directory of Metropolitan Charities," there are now 1000 institutions in London with an aggregate income of no less than £4,121,548. Of these, eighty-two are hospitals and forty-seven dispensaries, whose united yearly receipts amount to the total of £537,000, or about an eighth of the whole.

Vivisection.—Touching the present agitation on this question, it may be opportune to notice that the Report of the Royal Commission in 1876 appeared perhaps to give wider satisfaction than is often produced by such documents. Those who practised vivisection said that it exonerated them from the imputation of wanton cruelty. Its opponents were pleased by the proposal that it should be subjected to legislative restrictions; the irreconcilables were, of course, not reconciled, but scientific persons were glad to observe that Mr. Hutton signed a report admitting the occasional advantage of vivisection. Moreover, it established some important points: that the extension of physiology necessitates a certain number of experiments upon living animals, and that a knowledge of physiology had been of great service both to men and beasts. The progress of medical science undoubtedly produced the discovery of anesthetics, and that discovery, the Commissioners remark, was due in great part to the practice in question. But great dissatisfaction has justly been excited in the medical profession by the way in which the child of the Commission—namely, the Vivisection Act—has of late been administered.

How to get "a Good Thing over."—The Medical Officer of Health reports to the Brixham (Bridgwater) Local Board a severe epidemic of measles, which, he stated, had been aggravated by the neglect of many of the sufferers' parents. An erroneous idea prevailed amongst the working-classes that measles were harmless, and that it was "a good thing over." He knew instances where healthy children had been purposely mixed up with those infected, in the hope that they would catch the disease, which, he pointed out, often led to more serious disorders.

J. Edward L.—"Medical Recollections of the Army of the Potomac," by Jonathan Letterman, M.D. (Trübner and Co., London, 1866). It relates the experiences of a surgeon who took charge of the medical department of that army, and contains interesting facts respecting the sanitary effects of the various circumstances and changing fortunes of the army.

Health in the Hackney District.—In his vital statistics for the year 1881, Dr. J. W. Tripe, the Medical Officer of Health for the Hackney district (which comprises the parishes of Hackney and Stoke Newington), states that there were 6387 births and 3645 deaths during the year, or 175 births to each 1000 deaths. The annual death-rate per 1000 was 19.4, due allowance being made for deaths in the hospitals—that is, equal to 0.2 per 1000 below the average of the ten years 1871-80, and 3.4 per 1000 population below the mean for all London in the same decade.

COMMUNICATIONS have been received from—

Dr. ASHBY, Manchester; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE SECRETARY OF THE VICTORIA HOSPITAL, London; THE SECRETARY OF THE ODONTOLOGICAL SOCIETY OF LONDON; THE SECRETARY OF THE SOCIETY OF TELEGRAPH ENGINEERS, London; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE MEDICAL SOCIETY OF LONDON; THE SUB-LIBRARIAN OF THE OBSTETRICAL SOCIETY OF LONDON; THE SECRETARY OF THE CAMBRIDGE MEDICAL SOCIETY; Mr. PERKIN, Warwick; THE SECRETARY OF THE ROYAL INSTITUTION, London; Dr. NEALE, London; Dr. SAUNDY, Birmingham; THE SECRETARY OF THE HARVEIAN SOCIETY OF LONDON; THE SECRETARY OF THE GENEVA INTERNATIONAL CONGRESS OF HYGIENE; Dr. WILLOUGHBY, London; Mr. PARKER, London; Dr. MOORE, Dublin; MESSRS G. STREET AND CO., London; Mr. BALMANNO SQUIRE, London; THE SECRETARY OF THE SOCIETY FOR THE ENCOURAGEMENT OF ARTS, ETC., London.

BOOKS, ETC., RECEIVED—

Annual Report of the Supervising Surgeon-General of the Marine Hospitals of the United States for 1881—Sessional Proceedings of the National Association for the Promotion of Social Science—Essentials of Medicine, by Henry Hartshorne, A.M., M.D.—Report of the Port Sanitary Committee—Early Ovariectomy, by G. Granville Bantock, M.D.—Annual Report of the Local Government Board, 1880-81—Guide Pratique d'Electrothérapie, par le Dr. E. Bonnefoy—Clinical Contributions to Otolaryngology, by C. R. Agnew, M.D., and David Webster, M.D.—Étude Comparée du Médicaments, par le Dr. Duboué—De la Syphilis du Testicule, par le Dr. Paul Reclus—The University College Hospital, by Newton H. Nixon—Guy's Hospital Reports, vol. xxv.—Diseases of the Heart, by G. W. Balfour, M.D., etc.—Of the Average Weights of the Body and Brain, by Dr. Boyd: Table II.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Gazzetta degli Ospitali—Centralblatt für Gynäkologie—Gazzetta Medica Italiana—Philanthropist—Chambers' Journal, January 21—Revue d'Hygiène—Indian Medical Gazette—Huddersfield Examiner, January 21—Buxton Advertiser, January 21—Night and day—Liverpool Daily Post, January 24—The Oracle.

APPOINTMENTS FOR THE WEEK.

January 28. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. E. Pauer, "Ludwig van Beethoven."

30. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. The President, "On Post-mortem Appearances in a Case of Paralysis of the Seventh, Eighth, and Ninth Nerves, shown to the Society on October 31, 1881." Dr Benjamin Howard (of New York), "An Account of the Proposed Hospital and Accident Ambulance System for London" (the London Hospital Ambulance will be exhibited). Dr. Stretch Dowse, "On some Points in the Differential Diagnosis of Intracranial Disease, General Paralysis of the Insane, and Tabes Dorsalis."

31. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Professor John G. McKendrick, "The Mechanism of the Senses."

PATHOLOGICAL SOCIETY, 8½ p.m. Living Specimens: Mr. Balmanno Squire—1, 2, and 3. Three Cases of Lupoid Disease occurring in One Family; 4. Lupus in Earliest Stage; 5. Lupus affecting only Cicatrices of Old Sinuses; 6. Extensive Lupus of Arms and Face; 7. Lupus Erythematosus.

February 1. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON 4 p.m. Lectures and Demonstrations: Dr. Reginald Thompson.

EPIDEMIOLOGICAL SOCIETY (Council Meeting, 7½ p.m.), 8 p.m. Sir Joseph Fayrer, "On Malaria."

OBSTETRICAL SOCIETY, 8 p.m. Annual Meeting. Election of Officers and Council. Specimens will be shown. President's Address and other Communications.

2. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ROYAL INSTITUTION, 3 p.m. Mr. H. N. Moseley, "Corals."

HARVEIAN SOCIETY, 9 p.m. Mr. Osman Vincent, "On Cases of Contraction of the Knee and other Joints." Dr. Day, "On Headaches in Children."

3. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Professor Tyndall, "On the Action of Molecules, Free and Constrained, on Radiant Heat."

IGNIPUNCTURE IN INVETERATE ECZEMA OF THE FACE.

—Dr. Chalot, writing in the *Gazette Hebdomadaire de Montpellier*, states that in several cases of inveterate eczema of the face, in which destruction of the eczema by means of the bistoury or scarification would cause too great disfigurement, he has found multiple ignipuncture very serviceable. This consists in cauterising by means of small actual cauteries or the point of Paquelin's cautery heated to a white heat. The cauterisations must be deep, penetrating into the dermis, and sometimes into the subcutaneous cellular tissue, and they must not be more than six or seven millimetres distance from each other, extending half a centimetre beyond the part affected. Dressing with carbolic tepid water diminishes the pain and favours the fall of the eschar; and for timid patients local anaesthesia may be induced by a mixture of salt and ice. The minute whitish cicatrices that are left are less disfiguring than the eczematous patches.—*Presse Méd. Belge*, January 15.

ORIGINAL LECTURES.

A HOSPITAL AND ACCIDENT AMBULANCE SERVICE FOR LONDON.(a)

By BENJAMIN HOWARD, A.M., M.D., F.R.C.S.E.

It is now over seventeen years ago since the first ambulance system ever established had its earliest opportunity of proving its value as a distinct organisation. On that occasion, when over 10,000 men lay on the field about Antietam, by the sudden disability of Dr. Letterman, the supreme responsibility was by special order placed upon me.

Thus initiated in a work in which my interest has been active from then till now, it was, I can assure you, in no spirit of criticism I called attention, when in London three years ago, and again in the medical journals last July, to the manifest need of an ambulance system in this quasi-battlefield of London.

The Committee of the London Hospital having, upon my urgent representations, decided last September to adopt a hospital and accident ambulance service, and having now further arranged for a conference of the other general hospital authorities with themselves, within a few days, to be presided over by His Royal Highness the Duke of Cambridge, to consider the organisation of an hospital and accident ambulance system for London, it has been deemed of first importance that, in advance of this public meeting, the whole question be submitted to this Society, which so largely represents the profession of the entire metropolis.

As briefly as I may, therefore, after glancing at some general reasons for an ambulance system, I will allude to the pre-eminent force of these and other reasons as applied to this particular locality; will give some account of the different systems already in operation or adopted in other cities; describe the system recently initiated at the London Hospital; and lightly touch upon such points as are likely to invite special attention in the future determination of such system or systems as may be practicable and best for this heterogeneous and unparalleled metropolis.

SOME GENERAL REASONS FOR AN ACCIDENT AMBULANCE SYSTEM.

The influence of a right or wrong first aid, and good or bad transportation, not only in surgical, but in many medical emergency cases, towards determining the recovery or death of the patient, it is not easy to exaggerate. In the present absence of system, the earliest diagnosis between apoplexy and "drunk and incapable" is made by the policeman. The treatment on the spot is as miscellaneous as the rival sympathisers can make it. As regards transportation, this, in two or three respects, has since the middle ages been slightly modified. For example:

The police stretcher, or the shutter, formerly carried by the hands, with the advantages of suspension, is now more usually borne upon the shoulders of unequal men, with the hoisting, lowering, jolting, risk, exposure, and fright, thus unavoidable. A wheelbarrow litter has lately been occasionally used, in a description of which, under the head of "Police Cruelty," the London *Lancet* has denounced it as "worse than useless from every medical standpoint." A vivid description of the scenes attending an average removal, in these ways, of a criminal or a patient, may be found in an excellent pamphlet published last November by Mr. Harrison, of Liverpool.

The other modification, which I would fain not even mention, is the cab, familiarly known as the "growler." In other respects, while the treatment of emergency patients within the hospitals has in every particular marvellously progressed, the provision for their first care on the spot

and their transportation to hospital is, in the main, what it was a century ago.

Whatever the sex, age, rank,—be the case one of cardiac syncope or apoplexy, fracture, dislocation, or "drunk and incapable,"—whether the one or the other of the means of transportation above-mentioned be used,—is left exclusively to the in-discrimination and convenience of the policeman. For the worst fracture in the most distinguished patient there is no choice in removal, except risking his reputation on the police stretcher, or his life, perhaps, in the impossible cab.

For assurance against volunteer maltreatment of emergency and street accidents on the spot; against detention or rejection at the nearest hospitals; for assurance that the first care shall be prompt, exclusive, skilful; that the transportation shall combine ease with seclusion,—the only resource, according to experience, is such co-operation of police, hospital, and other authorities as is implied in a hospital and accident ambulance system.

THE IMPORTANCE OF AN AMBULANCE SYSTEM FOR LONDON PRE-EMINENTLY, AS COMPARED WITH OTHER CITIES.

The considerable proportion of the twenty-two thousand patients received into five only of the London hospitals in 1880, and all of the nearly three thousand due to horse and vehicle accidents that same year, form together but a fraction of the emergency cases, whose annual aggregate is vastly greater in London than in any other metropolis.

Not only the volume of the traffic, with its dangers, excitements, and delays, but the distances which frequently have to be traversed by patients before reaching the nearest hospital, are greater than in any other city. Owing to the unequal distribution of the general hospitals, a fracture, from the site of the accident, within the registration area, to the nearest general hospital—notably if to the London, to Guy's, or St. Thomas's Hospital—may have to be transported four to seven or more miles. This fact gives not only magnitude to the estimate of the avoidable evils arising from the absence of an ambulance system, but to all the reasons which suggest themselves for the adoption of such a system.

AN ACCOUNT OF THE LEADING POINTS IN THE AMBULANCE SYSTEMS WORKING OR PROJECTED IN OTHER CITIES.

Although the manner of working is not in each city alike, in all cases there are four invariable factors. These are the police, the hospitals, the horse ambulance carriages, and the electrical communication.

The points of difference in different cities concern chiefly the location and *personnel* of the ambulance carriage. In Chicago, the principal hospital is at the outskirt of the city. With the police-stations, of course it is otherwise; and at these the ambulances are kept. The *personnel* consists of policemen only. For the ambulance summons a unique provision exists. At the corners of numerous streets are what resemble the ordinary pillar-post in miniature; any one of several keys kept in the houses or shops in the immediate vicinity of one of these posts, on being introduced into the keyhole of its corresponding post, sounds an ambulance alarm at the police-station of that particular district, and, as quickly as it could be done by a fire-engine, the ambulance at a gallop appears on the spot.

As a check to false or reckless alarm, each key—which is numbered and registered against the name of the holder—is so constructed that, once introduced, it can be withdrawn only by the ambulance driver, who delivers it back to its holder, and takes the patient to the hospital of the respective district.

In New York, Boston, and Philadelphia the ambulances are kept at the hospitals only, horses for which, as is common to the system everywhere, are kept harnessed night and day. The *personnel* includes a house-surgeon or substitute. The ambulance summons is sent by telephone from the police-station nearest the site of the accident, to the headquarters of the police, where, on a chart, is seen at once the hospital district of the address where the ambulance is required, and the telephonic summons is then forwarded to the hospital of that district. A diagnosis blank is filled up by the ambulance surgeon before removing the patient, and immediately on returning to the hospital, this, with the time of departure, arrival, return, and other particulars, is entered in a book for that purpose. If after the necessary attention the patient desires it, and the surgeon approves it, the patient may be transferred by the ambulance to his own home.

(a) Read before the Medical Society of London, January 30, 1882.

In Cincinnati, ambulances are kept at all the hospitals, and at some only of the police-stations; in Washington, at all the hospitals, and at every police-station.

From the general interest awakened by the ambulance carriages, not only amongst the police, but the people generally, there is so much familiarity with the provisions and rules of the system, that such intelligent co-operation as may be in any case expedient is rarely wanting.

In the neighbouring city of Paris, the project, which has received the municipal approval, consists in having horse ambulance stations, corresponding in their distribution to the former "Secours de Blessés" stations, forming together a distinct municipal organisation.

THE AMBULANCE SYSTEM AND AMBULANCE CARRIAGE OF THE LONDON HOSPITAL.

By reference to the diagram, it may be seen that, nearly equidistant, and in different directions from the London Hospital, there are eight police-stations. If not in consequence of my suggestion, certainly in accordance with it, each of these stations, formerly in telegraphic connexion



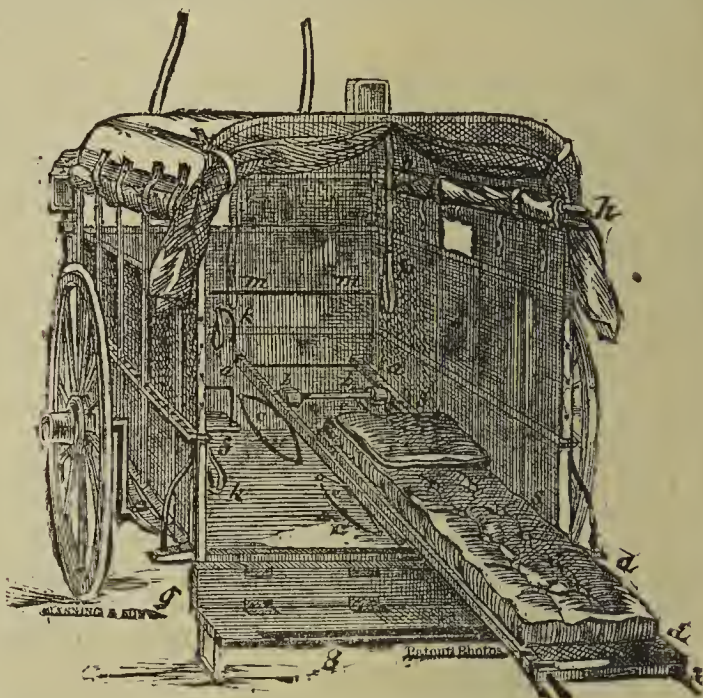
Explanation of Diagram.—(Small circles) police-stations; (single lines) telegraph wires; (double lines) telephone wires. From Guy's Hospital south there is no other General Hospital whatever. From the London Hospital north no other General Hospital in any direction except at Dalston.

with Scotland-yard, are now, by the cordial co-operation of Sir Edmund Henderson, being connected also with each other, so as to form a distant but complete telegraphic ring around the Hospital. Tapping this circle at one point—viz., the nearest police-station—by a telephonic wire thence to the Hospital, it will be seen how (as represented on the diagram) the entire area round about the Hospital is brought into direct communication with it. The cost of this wire for the first three months, I am given to understand, will be—nothing; afterwards, by special concession, below the usual rates. As one of the privileges of subscribers, and at no extra cost, this telephone may be connected at any moment with that of every other subscriber.

Thus, every policeman within the London Hospital area, having the addresses of said subscribers within his beat, from the nearest private instrument of the already many hundred subscribers the ambulance summons may be sent

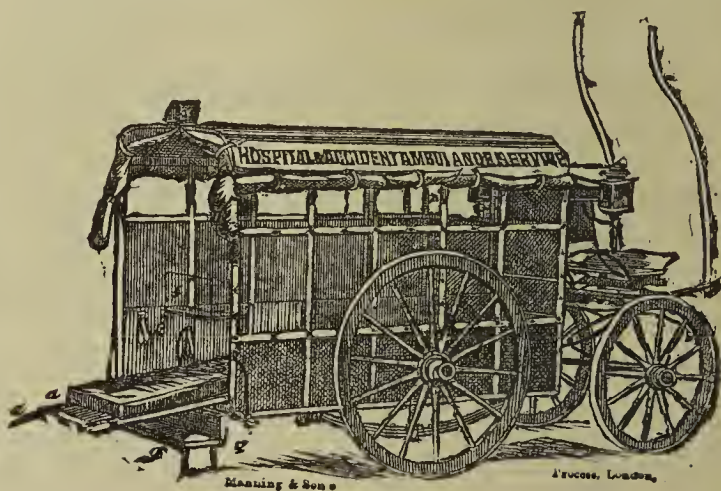
direct to the Hospital. This is the outline of the plan which I have submitted to the London Hospital Committee, and which I trust will soon be in complete working.

The ambulance carriage, in the absence of which neither this nor any other scheme could take practical form, I thought at first to import from New York, that being the nearest place where any accident horse-ambulance could be procured. You will not regret to know, however, that, as the ambulance of the London Hospital, which I have the



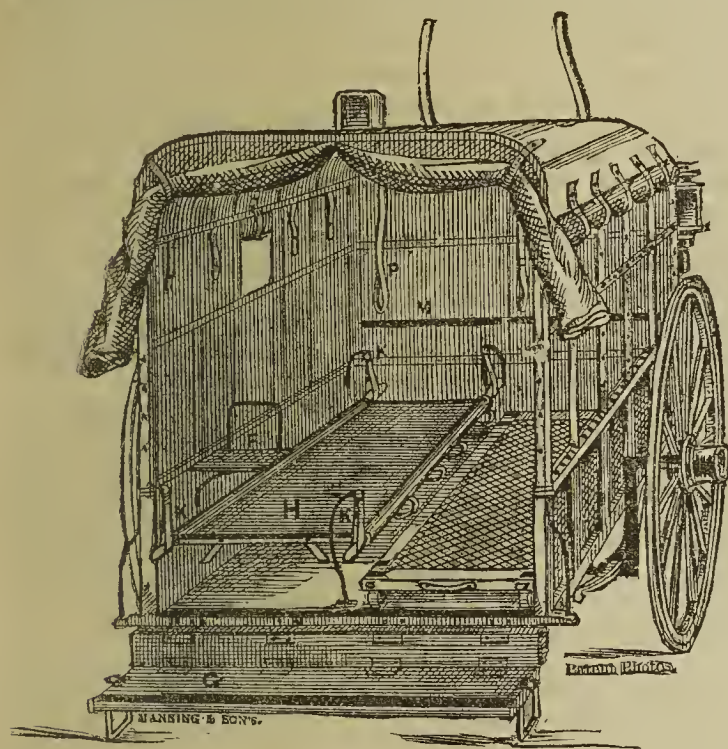
Explanation of Drawings.—(a.A.) tramway; (b.B.) rubber rollers; (c.C.) counterpoise-springs; (d.D.) litter; (e.E.) sliding handles; (f.F.) attendant's seat; (g.G.) tailboard; (h.H.) folding stretcher; (k.K.) suspension loops; (m.M.) supporting bar for police stretcher; (n.N.) canvas handles of carrying sheet; (p.P.) patient's aid strap; (s.S.) lateral rubber buffers.

pleasure of showing you to-night, was subsequently planned by me here, and built for me here, with express adaptation for the London service, it is both in design and make a London ambulance. In every leading particular, too, but one it is different from any ambulance carriage previously constructed. The exception to which I allude is the interior counterpoise springs, used first in my military ambulance, so well described in Professor Longmore's book, and which, besides taking the highest international prize at the first Paris Exposition, was largely used in both the American and Franco-German Wars.



The ambulance which I have now to describe, and which was presented to the London Hospital by its vice-chairman, Mr. Crossman, is, I believe, the only accident ambulance carriage in civil life in Europe; certainly, I think, the only one belonging to a general hospital. It is briefly a neat little apartment 6 ft. 6½ in. by 4 ft. 1 in., in which, on a sliding litter with perfect surgical bed, the worst fracture patient, his attendant seated beside him, may be transferred, for example, from the most distant country seat in Scotland, to the farthest Italian villa, in safety, comfort, and seclusion. This seclusion may be maintained without a moment's disturbance until the patient from the same litter is shifted to

his bed awaiting him in Italy. The size of this vehicle is arranged so that, whether shifted from the road, boat, or rail, it undergoes no change, and being all the time in running order, there need be no prolonged delays during the shiftings. On looking at the outside, you see it is a light, rather pretty-looking one-horse vehicle, the sides above the body panels as well as the front and rear consisting of brown duck, in detachable sub-sections and small curtains. The floor of the vehicle is but twelve to fifteen inches from the ground, and between these the tailboard, when lowered, forms a firm equidistant step. The hind wheel is large, and is in the centre of the body, the floor of which is below the axis of motion, while the spring from which the body is suspended is a very long semi-ellipse. The four wheels have india-rubber tires. By a special contrivance of the running gear, the fore-wheels and the entire carriage turn exactly on its own axis. Beneath the driver's seat is a box for medical and surgical appliances. Two red lamps beside the driver, and one in the rear, are used to prevent collision. The shafts are adapted to any cab-horse and harness. A centre pole may be applied for two horses. In any case, however, it can, if necessary, be drawn by one man. The associate Editor of the *Lancet* started and drew it in the shop with one little finger. This has been repeated by myself even in an ordinary paved street. Looking at the interior, which is entered with the same ease as a room on the ground



floor of any ordinary house would be, the right half of the floor is seen to be occupied by a light tramway, with india-rubber roller ties. The tramway rests on four light elliptical springs, the pair at the head being about six inches higher than those at the foot. Between the side of the tramway and the inside of the body of the vehicle are india-rubber buffers. Resting upon the india-rubber rollers mentioned is a light cane-bottomed litter with sliding handles. Upon the litter a waterproof thin hair mattress and pillow are used, or not, as preferred.

The front litter-bearer walks into the ambulance far enough to rest his end of the litter on the rear roller, when the rear bearers, pushing with one hand, the patient is slid noiselessly and with scarcely conscious motion into position. With a very heavy patient upon it I have done this myself with two fingers. Above the patient, from the roof, is a wide-looped pendent leather strap, by which the patient may steady or raise himself. A corresponding contrivance lower down can be attached for suspending a fracture if desired.

In the other half of the interior is a detachable seat for the attendant, the remaining part of the floor being clear. Should two patients need transportation, a folding stretcher is detached from an angle in the roof, the handles of which are received by leather loops, and by which the second patient is suspended parallel with the first.

Should it happen that, on the arrival of the ambulance, the patient is already on an ordinary police stretcher, or

should four patients need transportation, a horizontal iron bar receives the front handles of the stretcher, and the iron-shod top of the tailboard the rear handles. Thus there is avoidance of shifting in the one case, and easy transportation for four patients in the other case, without the slightest interference of the one with the other; the attendant having in this case simply to ride outside, where there is excellent accommodation beside the driver.

Although, when perfectly closed, the light and air are not insufficient, by means of the eight little upper curtains these can be increased at pleasure, without exposure of the patient to public gaze. Where the latter is no consideration, the eight sections forming the lower part of the sides above the body can also be removed, forming simply an open but roofed carriage.

The principal objective points obtained in this ambulance are—

(a.) *Ease of Entrance and Exit.*—In every other ambulance, civil or military, as also in every fever carriage, the height of the floor necessitates several attendants, and such hoisting and lowering, pushing and hauling, as is particularly alarming and objectionable. The lowering of the floor, which so completely obviates this, was, I believe, never before attempted or suggested. This, with the additional arrangement of the rubber rollers on the tramway, may be fairly said, I think, to make the ease of entrance and exit complete.

(b.) *Ease of Motion in Transportation.*—The central position of the axle, the largeness of the rear wheel, the lowness of the floor below the axis of motion, the length of the semi-elliptical mainspring, the suspension of the body from this, together with the india-rubber tires, never before applied to a horse ambulance carriage, have combined to secure the highest degree of steadiness obtainable for the body of the vehicle.

This minimum motion of the body of the vehicle, instead of being communicated to the patient, is intercepted, its chief force being expended upon the interior counterpoise springs which vertically and laterally poise the tramway. Mr. Adams, one of the Surgeons of the London Hospital, lying upon this litter at varying speeds, said it seemed almost easier in motion than at rest; and in running the ambulance over successive pieces of loose wood, he detected the crossing of them rather by the alteration in the planes of the interior, than by any conscious jar they occasioned.

A gentleman, who on a recent trial trip went to take notes of the action of this litter, soon after the start forgot his purpose in a gentle slumber, induced, strange to say, by the roughness of the road—in other words, by the easy oscillations occasioned in traversing a street under repair.

By the principle of suspension, as illustrated in the attachment of the canvas stretcher, the conditions, though for a fracture case not so desirable as those of the litter, are for a medical case scarcely less agreeable; the elasticity of the stretcher poles as thus used preventing the propagation of jar or shock to the patient.

One feature in this stretcher is as convenient as it is novel. Across the under side of the canvas, from which both poles and stretcher bars may be easily and completely detached, are stitched four broad bands of the same material, terminating in firm loops slightly projecting beyond the lateral margins.

On this carrying sheet, to which the stretcher may be thus easily reduced, the patient may be carried easily and comfortably where the stretcher complete would not go. The ease with which it can be insinuated beneath, or withdrawn from under, a patient,—or, when there, be left there,—may be a great convenience, and avert much suffering.

(c.) *Ventilation and Light with or without Exposure of the Patient to Public View* can be regulated to the utmost.

(d.) *Immunity from Contagion.*—The cane-bottomed litter is, without the mattress, sufficiently comfortable. The interior is then but wood and iron, and accessible to the quickest and most thorough cleansing.

(e.) *Adaptability to other Uses.*—The tramway is readily detached from the floor. The interior, then quite clear, is adaptable to any purpose of pleasure or utility for which a vehicle might be desired in connexion with an infirmary, hospital, or other institution.

My thanks are due to Mr. J. U. Burt, of the Swinton-street Carriage Works, for his patience and faithfulness in carrying out my designs in the construction of this vehicle.

SOME OF THE LEADING QUESTIONS WHICH WILL ARISE IN THE CONSIDERATION OF AN AMBULANCE SYSTEM FOR LONDON.

1. *The Kind of Ambulance Carriage to be employed.*—Should the carriage I have presented to your notice prompt somebody to the introduction of a better, my satisfaction would be so much the greater. To stimulate invention in this direction, the suggestion of prizes, recently put forward by Sir Edmund Lechmere and Major Duncan, would doubtless be of service.

2. *The Location and Personnel of the Ambulances.*—Shall the ambulances be stationed at the general hospitals, the police-stations, fire-stations, or at special ambulance-stations. If at any one of these only, which? If at more than one of these, at which other or others?

For the police-stations, may be shown their superior number and distribution—the always available force at each. Against them, the natural and rightful repugnance of the better classes, for whom the ambulances are equally intended, as well as indeed that of all other classes, to personal police attendance; while the absence of good first care on the spot, and the uncertainties about admission, detention, or rejection on reaching hospital, would be then as great as now.

For the location of the ambulances at the hospitals, it may be said, the question is one of medical aid on the one hand, of public need on the other, affecting, in a personal way no other question connected with hospitals could, those who, supporting the hospitals, are accustomed to look to them as the natural source of the best and rightful help in a possible street accident to themselves; and that the ambulance of the hospital would be but a natural and legitimate extension to the time it is first and perhaps most critically needed of the help the hospital now gives; and by which it would thus but complete the function it now partially fulfils. The facility for a medical attendant would be greater; there would be a guarantee against hospital yard detention; against possible rejection and delayed treatment. The help afforded would be dissociated from the now humiliating and criminal suspicions. For the hospitals there would be evoked higher esteem, more personal interest, sympathy, concern, and help from the subscribing classes. As regards *personnel*, the rank of the medical attendant would be of little consequence; his competency, of much. The work would be no harder than that to be expected in country or in army practice. The hospital would have by this service a new prize, and another useful certificate to offer the deserving candidate for a term as short as may be found expedient. In America, as a rule, the ambulance system is strictly a hospital ambulance system; the medical attendant is usually what corresponds to a senior or junior dresser. No part of the scheme has so much secured the success and popularity of the system as the quick medical help it guarantees to the entire public.

3. *Special Ambulance Stations.*—These might be at the same time small emergency hospitals, and, in the outer and almost destitute seven-mile circle of London, might have a relation to the general hospitals, corresponding to that between the field and the base military hospitals, the patients being drafted from the former into the latter as may be required.

4. *The Form and the Source of the Ambulance Summons.*—In America, the intercommunication between the respective police-stations continues to be telegraphic. Between the police and the hospitals it is telephonic, so that the call can be understood by anybody in attendance at either end of the wire. In regular course the ambulance summons comes to the respective hospital from the headquarters of the police; it may come, however, direct from any public or private telephone whatever.

As an instance of the quickness of the service made possible by the telephone, only this morning Dr. Beckwith, of Washington, told me that on the occasion of an accident to the surgeon of the guard of honour during the inauguration of President Garfield, he (Dr. Beckwith) himself telephoned from a neighbouring store, and, notwithstanding the unprecedented multitude in the streets, from the time of the summons to the arrival of the ambulance was by his watch exactly two minutes!

Before long, every police-station in London will be in telegraphic communication with every other. One of these stations is sure to be not very distant from a general hos-

pital. One short telephonic wire, therefore, will put every police-station in communication with that hospital. Moreover, every public and private telephone in London, by the ordinary method of connecting subscribers with each other, will then be in communication also with every hospital telephone. A street accident occurring anywhere, a policeman, guided by his list, from the shop, or bank, for example, next door, perhaps, may telephone to the respective ambulance the address where it is wanted. A purposely false summons would be, of course, a criminal act.

5. *The Relation of the Police Department to the Ambulance System.*—This in any case must of course be integral. Whatever the system, it is necessary every policeman should be intelligent as to the details of it, while the entire force must be in harmony with the other part of the organisation.

On this point I am happy to say that by Sir Edmund Henderson, the Chief of the Metropolitan Police, I was long since authorised to state, to whomsoever it might concern, that his practical co-operation may be fully relied upon.

6. *The Cost, and how it is to be met.*—In America, as a rule, the hospitals have provided the necessary change in their premises, procured and maintained the ambulance horses, etc., complete in working order—making themselves simply available; the municipalities have done the rest.

The cost of the ambulance I show you will be, I think, from sixty guineas upward,—scarcely more than half the cost in New York of the ambulances used there. Telephonic communication costs, at regular rates, at present £45 a year; but for this ambulance service special concessions are promised. On the advent of the expected Government control of the telephonic service, the subscription is expected to be lower, and the distribution of it more general. An ambulance carriage is just the kind of thing many donors would like to give. An ambulance-station is just the thing many would like to endow, its daily benefit being to them daily visible. From my observation where the system is oldest, I believe that, if put on a voluntary basis in London, it would by its popularity probably elicit enough to support itself, and do more than all things else combined to augment the hospital fund beside.

7. *The Expediency of attempting Complete Organisation at the Outset, or of allowing Gradual Development.*—This question, confronted in its entirety, it must be admitted, promises no easy achievement. The hospital modifications; the police and telephonic arrangements; the harmonising of these with the heterogeneous parochial administrations, like the obstacles which, incomparably greater, were surmounted by the railway, telegraphic, and fire brigade systems,—may not, and should not, be accomplished in a moment.

The work as initiated by the London Hospital is, considering its importance, strikingly simple and easy. By the neighbouring hospitals assuming a similar work for their respective districts, a fair proportion of the metropolitan area would, as I have shown upon the diagram, be provided for without delay, and the ultimate system or systems might be determined by gradual development.

8. *The Authority by which the ultimate Hospital and Accident Ambulance System for London shall be controlled.*—This must remain a question until, sooner or later, the time has fully come for the answer. The necessarily integral position of the police department in such system is suggestive. I should venture to say there can be little doubt that, however successfully different districts may be separately worked, in order to the highest success, the entire organisation will ultimately be under one authority, so complete and absolute as to insure corresponding responsibility and accountability in every subordinate whatsoever.

SOME OF THE RESULTS AND ADVANTAGES WHICH, FROM EXPERIENCE IN OTHER CITIES, MAY BE REASONABLY ANTICIPATED FROM THE METROPOLITAN HOSPITAL AND ACCIDENT AMBULANCE SYSTEM OF LONDON.

1. Quickest possible medical aid and best form of transportation to the home or to hospital in street accidents and other emergencies.

2. A sense of security, which by the knowledge of this provision will be imparted to every rank and class throughout the entire community.

3. A more personal interest, a deeper sympathy, a closer relation, will be established between the subscribing class and such hospitals as by their ambulance service shall

manifestly include this class within their most important provisions.

4. The sense of public obligation thus induced, and of which the ambulance carriages as they pass will be a daily reminder, should sensibly augment the hospital revenues, both by multiplying contributions and prompting endowments.

5. As a substitute for the much discussed redistribution of hospitals, it offers a simple form of hospital extension, the ambulance bringing the hospital to the spot, however distant, where the patient is.

From personal observation in nearly every city where an ambulance system exists, I should say that in every one of them the ambulance department for the saving of life has come now to be deemed almost as important as the more expensive fire department for the saving of property; that now, to abolish the one, would be as difficult as to abolish the other.

One of the earlier results of the "Hospital and Accident Ambulance Service of London," which I venture to predict, is a general expression of surprise it was not adopted before.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

By DR. MCCALL ANDERSON,

Professor of Clinical Medicine in the University of Glasgow;
Physician to the Western Infirmary, and to the Special Wards for Diseases of the Skin.

LECTURE III.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

(Continued.)

II. FUNCTIONAL AFFECTIONS OF THE HAIR.

A.—Abnormalities in the Amount of the Hair.

1. *Excessive Growth of the Hair* (Hirsuties).—By this term is meant not undue length of the hair, but abnormal development at parts where it is usually invisible or only present in trifling amount. This condition may implicate the whole body, though rarely, in which case it is usually a congenital affection, or nearly so; but in the majority of instances it is localised and acquired, making its appearance, as a rule, after puberty. It is chiefly met with in women, in whom it is apt to take the shape of rudimentary whiskers, moustache, or beard, and in them appears often to be connected with derangements of menstruation, or cessation of the functions of the ovaries. The diagnosis is unfortunately only too plain, and the affection must be regarded rather in the light of a deformity than as a disease.

2. *Defective Growth of Hair* is much more commonly observed, and may be classed under one or other of the three following divisions:—

(a) *Alopecia Senilis*.—This is due apparently to defect of nutrition and atrophy of the hair follicles, in common with the other structures of the skin, and can only be regarded in the light of an abnormality when it occurs in early adult life, in which case it is frequently hereditary. It is much commoner in males than in females, and this is supposed to be partly due to the pressure of the edge of the hat on the sides of the head, thus interfering with the circulation. It may be distinguished from other forms of alopecia from the fact that it commences upon the crown, from which, as a centre, it gradually spreads, and is often preceded by greyness of the hair, which is otherwise healthy.

(b) *Alopecia Simplex* (*Alopecia Idiopathica*).—By this term is meant a thinning of the hair, which comes away in great abundance on combing; this may even cause partial baldness, which, however, is usually temporary. It is unaccompanied by eruption of any kind. The hairs themselves appear to be healthy; but the hair bulbs are more or less atrophied, owing, no doubt, to defective nutrition of the hair follicles, seeing that it generally occurs in connexion with debility and a lowered tone of the nervous system; and the most typical cases are met with after serious illness, such as an attack of typhoid fever. As far as the examination of the hair or of the scalp is concerned, it is impossible to distinguish simple from syphilitic alopecia,

to be described later on along with the Syphilitic Affections; but the latter may be suspected if we have a history of recent infection of the system, and if other, and characteristic, manifestations of syphilis are discovered. If the loss of hair accompanies, or is preceded by, an eruption on the scalp, it should not be classed under this head, but with the disease of which it is a symptom and an accompaniment, such as Seborrhœa and Pityriasis Capitis.

(c) *Alopecia Areata*.—In this affection the loss of hair assumes the form of round bald patches, and in well-marked cases the exposed scalp is pale, smooth, and polished like a billiard-ball. In less advanced stages the surface is dotted with the orifices of the hair follicles, and often a few hairs are left; but more frequently only here and there a little stump is seen, which is dark and thickened towards its free extremity. The bald patches may be solitary or multiple, and are generally discovered accidentally, often long after the disease has commenced, if they are limited in extent. Sometimes they remain stationary for a lengthened period of time; sometimes they extend rapidly and coalesce, forming irregular, sometimes serpentine, patches (Ophiasis); or the whole head may be involved, or even every hair of the body removed. The parts most liable to attack are the back and sides of the head above the ears. The alopecia may disappear spontaneously, or continue for months or years, or may even be permanent; and the older the patient, the more tedious and the less certain is the recovery. When improvement begins, the surface becomes studded over with fine, white, silky, downy hairs, which by degrees become longer and stronger, and gradually assume their normal colour.

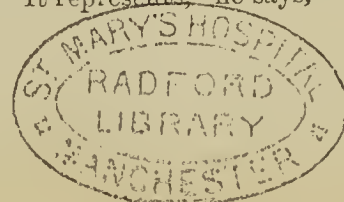
Some say that this is a parasitic affection (hence the term *Tinea Decalvans*, sometimes applied to it), the supposed fungus being termed the *Microsporon Audouini*, after Audouin, who first described it. The occasional history of contagion certainly appears to favour this view; but we have failed in any case to find a fungous growth in the hairs, or in the skin, but only atrophy of the bulbs, while the broken ends of the stumps are ragged, like those of a piece of wood which has been broken across. In our opinion it is a neurotic affection—a sort of paralysis of innervation (Wilson)—often associated with a tendency to headache and other nervous symptoms, and sometimes resulting from a sudden shock, when the whole of the hair may disappear within two or three days. In the paper formerly referred to, at page 263, cases are recorded, which point to the connexion apparently subsisting between *Alopecia Areata* and *Vitiligo*, which, as already stated, is in our opinion a neurotic affection, and probably dependent upon perverted innervation of the sympathetic nerve.

B.—Abnormalities in the Growth, Texture, or Colour of the Hair.

Under this head three affections may be described.

1. *Fragilitas Crinium* (Wilson).—In this affection the hair, which apparently is otherwise normal, is dotted here and there with little whitish spots. On microscopic examination these are found to be partial fractures, having very much the appearance which would be presented by a couple of minute brushes stuck into one another. The friability of the hair is further demonstrated by the circumstance, that, after it grows a certain length, it is very apt to break at one of these points, leaving a ragged, brush-like end. This affection may attack any part; but the hair of the face is much more frequently involved than that of the head. The condition must be due to some obscure deviation from a state of perfect health, leading to defective nutrition of the papilla of the hair, interfering with its growth and making it brittle.

2. *Trichorexis Nodosa* (Kaposi).—This term, which has also been applied to the condition just described, is better restricted to the following, which is after all probably but a modification of it, and which has been named *Tricoptilosis* by Devergie. On examining the hair in this affection with the naked eye, it is seen to be studded at regular intervals with little glistening dots, almost like beads on a necklace, and it is very apt to break across at one of the internodes. On microscopic examination the dots are found to be little fusiform, nodose swellings, the average diameter of which is $\frac{1}{200}$ ", while that of the constrictions is $\frac{1}{500}$ ". Good examples of this abnormality were described and shown by Dr. Walter G. Smith, of Dublin, at the Cork meeting of the British Medical Association in 1879. "It represents," he says,



curious freak of perverted nutrition, there being, so to speak, a regular succession of periods of growth and of atrophy, or a periodic alternation of activity and sluggishness." (a)

3. *Cavities*.—By this term is meant blanching of the hair owing to absence of hair pigment; apart from that occurring in advancing years, and which must be regarded as a physiological condition, premature decolouration of the hair is often met with, although rarely before adult life. Its genesis is altogether unknown to us, except that it is undoubtedly often hereditary. It may affect all the hairs, or some only, at first at least, or occur in tufts or patches, and is often associated with, or followed by, Alopecia, which would lead one to suspect that it results from some obscure perversion of the nutrition of the part. It is said sometimes to occur suddenly under the influence of violent emotion, even in a night, and is said by Landois to be then due to the sudden appearance of air-bubbles in the interior of the hair, obscuring the pigment. The normal colour is rarely if ever restored, unless when the deformity is secondary to some other disease, such as Alopecia Areata or Vitiligo.

ORIGINAL COMMUNICATIONS.

ON TWO CASES OF PAROXYSMAL HÆMOGLOBINURIA.

By ROBERT SAUNDBY, M.D. Edin., M.R.C.P. Lond.,
Assistant-Physician to the General Hospital, Birmingham.

IN the *Medical Times and Gazette* for May 1, 1880, I described a remarkable and unique case of hæmoglobinuria in a youth of sixteen, who presented the following peculiarities:—He was of a peculiar yellow anæmic complexion, the yellowness being more marked during his attacks; he had an enormous spleen, reaching down to the umbilicus; his blood presented the characters of slight anæmia; his urine *always* contained more or less hæmoglobin. I mentioned that it was hereditary, his father having had a similar enlarged spleen, and passed water of the same character; and that a sister was also a victim to this peculiar affection.

Recently I was called to see the sister for a trifling indisposition, when I ascertained the following facts:—She presents no abnormal physical signs, especially no evidence of splenic enlargement; her complexion is slightly ochre-tinged, like the brother's; her urine always contains a trace of hæmoglobin without albumen. She is now sixteen, and had menstruated for a short time regularly, but this has stopped for the last six months. She appears in other respects a well-grown, well-developed, intelligent young girl.

The brother has exhibited symptoms of mental aberration which gave rise to so much difficulty that I certified him as insane, and he was for a short time in an asylum. He seems quite unable to settle to any occupation; his mind is full of the most extravagant schemes; he appears unable to realise his position in life, and systematically ignores the state of his health. He has several times run away from home, at one time getting as far as Belgium. There is no history of insanity in the family, but during the latter part of his father's illness he was very peculiar; he was at times violent to his wife, and he distressed her very much by confessing to her that he had been unfaithful—a statement which she took pains to investigate, and she assured me that she believed it was entirely unfounded.

At the end of 1880 I had a young gentleman sent to me by my friend Mr. G. W. Tait, of Knowle, as a case of chronic Bright's disease. He had had persistent albuminuria since January, 1878, and had been seen by several physicians—among others by Dr. George Johnson—by all of whom he was regarded as a case of Bright's disease. He had spent the previous winter in Italy. His own account of himself was that he had had several attacks of hæmaturia without any dropsy; the first came on with a sore throat. On examining his urine it was clear, specific gravity 1008, and contained a dense cloud of albumen, but no casts. There was no cardiac hypertrophy, nor evidence of polyuria; the pulse was hard. His general appearance was that of a fairly healthy, well-developed young man, and the con-

stant absence of casts in the urine induced me to give a guarded but favourable opinion of his case. The idea of hæmoglobinuria was present to my mind, but had little to support it at that time. I saw him from time to time during that winter, but lost sight of him till last October, when I was sent for to see him at a country house where he was staying, and found him in bed, perspiring freely, in no pain; pulse 108; temperature 104.2° Fahr.; tongue furred; bowels confined; fauces slightly injected; no sickness or headache; no oedema; physical signs in thorax and abdomen negative. He told me that he had had a cold for a fortnight, and had felt "shivery" for the last few days, but had had no definite rigor. His urine was black, and contained hæmoglobin, albumen, granular matter, and hyaline casts. On the following day his temperature at the same hour (4.30 p.m.) was 105.2°, and the urine just passed showed, under the microscope, granular matter, hyaline and granular casts, and pigment, but no blood-corpuscles or oxalates. He was ill altogether about three weeks, but the urine began to get slowly lighter after four or five days. I tried him with chloride of ammonium for a day or two, but he disliked it, and it produced no effect, so I substituted two grains of quinine three times a day, dissolved in hydrochloric acid, which, together with an occasional dose of Carlsbad salts, he took until he was convalescent.

This case is of interest on account of the persistence of albumen in the urine, a symptom which has been recorded in another case by Dr. Forrest. (a) He has had no relapse since, but I have strongly urged the desirability of his seeking some occupation in a warm climate.

ON THE VALUE AND USE OF OPIUM.

By C. R. FRANCIS, M.B., Surgeon-General (Retired).

(Concluded from page 89.)

The Therapeutic Value of Opium.—Opium has always been considered one of the most valuable remedies in the Pharmacopœia; but I venture to think that we might, in many cases, obtain more benefit from it than we do. We might, where opium is indicated, give more than the books prescribe. The same may be said, indeed, of some other remedial agents. The maximum dose of liquor arsenicalis, for example, is fixed in the Pharmacopœia at eight minims three times a day; whereas I have given, and would not myself hesitate to take, if necessary, twice that quantity during the same period. I have known thirty drops successfully prescribed in a single dose for obstinate chronic ague, where quinine had lost its power. In my own practice, now, I always *begin* with eight minims. So, with other remedies of undoubted efficacy, I cannot help thinking that better results would follow the exhibition of the drug prescribed, if we gave it with greater boldness. To return to opium. Its tranquillising power is often marvellous. In India, where climate and other causes have combined to render the nervous system weak and irritable, it is singularly useful, either alone or in combination. In certain cases, especially amongst the natives, it increases the febrifuge efficacy of quinine, a cure being thus effected, where quinine alone would have been useless. Dr. Winchester, in his evidence before the Commission appointed some thirteen years ago to inquire into the financial aspect of the opium question, stated that opium was most useful in a malarious country like China; and it has been noticed (b) that opium-eaters in the malarious districts of India escape fever, whilst others are attacked. Prichard, in his "Administration of India," records his belief in opium rather than in spirituous liquors. Irritable sloughing ulcers often yield to treatment *only* when the system is saturated with opium. Opium-smoking is, I believe, one of the most promising remedies we possess for the treatment of tetanus, traumatic or idiopathic. It is invaluable in dysentery, and might, I think, be used much more freely in certain cases of this disease, where the requisite amount of rest, so essential in its management, cannot be secured without it; thus becoming a priceless adjunct to ipecacuanha, upon which

(a) *British Medical Journal*, May 1, 1880, page 656.

(a) *Glasgow Medical Journal*, page 423. 1879.
(b) *Indian Annals*, No. XXI.; article by Dr. W. J. Moore.

physicians nowadays with just confidence rely. I have seen a lady, suffering from the sequelæ of an inflamed(?) ovary after confinement—the lochia and milk being suppressed—who could not bear the slightest touch from the physician's hand over the organ, actually thump herself at the same spot when the opium had been given—one grain every two or three hours—for a couple of days; and finally, though her death had at that time been almost hourly expected, get well, live sixteen years longer, and eventually die of some other disease. The lady's constitution was essentially nervous, and she had suffered from chorea when approaching the period of puberty. Of course, the effects of such a powerful drug must be carefully watched.

One would not expect, *a priori*, that opium could give any protection against the effects of snake-poison; and yet the Bengalees believe that it does. This opinion, moreover, is not confined to them, for some European practitioners in India have advocated the free use of opium in snake-bite. Dr. Donald Butter presented a very interesting paper on this subject to the Medical and Physical Society of Calcutta in 1825 (see vol. ii. of the Society's *Transactions*). Dr. Butter tells us that he did not hesitate, in these cases, to give drachm doses of laudanum, each in an ounce of brandy, frequently repeated. In one case a lad of eighteen swallowed, within two hours, five drachms of laudanum and five ounces of brandy without any soporific effect, and but a very trifling degree of intoxication, being produced. He had been bitten by a cobra, and recovered.

It is unnecessary to refer further to the value of opium in disease—a value that is thoroughly appreciated by the profession in India; but it may be stated generally, that in those disorders where the nervous symptoms are prominent, or where the temperament is nervous, opium, unless contraindicated, will prove to be an ally, if pushed far enough, of far greater value than is commonly supposed in extra-tropical countries. It is marvellous to read of the Opium Commission, before referred to, asking from Sir Rutherford Alcock and others questions that are dealt with in all works on *Materia Medica*, and which might have been even more efficiently answered by Indian medical officers of experience; of whom, however, none appear to have been examined. The idea seemed to be then, as now, prevalent that opium could not be dissociated from debauchery and disgrace; and that the sooner, therefore, we got rid of it, the better.

When we stumble over stones or fall into wayside holes, we do not blame the stones and the holes, but our own short-sightedness. If the Styrian consumes at one sitting arsenic enough to kill a couple of score of his fellow-creatures who are not used to it, we do not banish arsenic from the *materia medica*, and thus deprive ourselves of one of the most effective of our remedial agents. So, if a man like De Quincey's Malay swallows at one gulp a lump of opium that would have extinguished a dozen men unaccustomed to the drug, instead of distributing it over a week or so and taking a moderate quantity daily, which De Quincey expected, and which would doubtless have been better for his health; if, to gratify his morbid lust of opium-smoking, the debauched Chinaman, having sold everything else, chooses to pawn his wife and sell his daughters; if the English opium-eater makes nine ounces of laudanum his daily moderate allowance, instead of half as many drachms; if others thus abuse this invaluable boon to mankind,—it does not follow that we should engage in a campaign against opium (of the mere mention of which drug some persons have a religious horror, based, it may be, upon some personal sad experience) *in toto*. It may fairly be assumed that what God has permitted man by his ingenuity to extract from the various materials so bounteously placed at his disposal in nature, he may utilise rationally and expediently. The argument, that because the preparation of alcohol is a somewhat complicated process it could never have been intended for use (medicinally), can hardly be a weighty one, as the same might be applied to numerous productions which we (teetotalers and all) have come to regard as essential to civilisation.

We join in the campaign against alcohol—a campaign which might never have been needed had Great Britain and Ireland been content with the percentage of it that exists in continental wines, and we abstain from all beverages containing it, because our “weaker brethren” do not, or will not, know where to stop, and thus many of them involve their families and themselves in misery and degradation. So the

moderate opium-eater, living in the midst of similar results brought on by the abuse of opium-smoking and eating, should abstain, for the sake of example, from the very moderate dose which he finds that he can take, and yet enjoy health; *provided* (and this is the gist of the matter) *he can do so, and retain his health*. The dose then becomes not only dietetic, but medicinal. But one must not too readily assume that health *will* be injured by leaving it off. As in the effort to abstain from alcohol, so in that to give up opium, a man must be loyal to his conscience. He must not suppose that every apparently unhealthy condition that may arise indicates the absolute necessity of resuming the drug. We have abundant experience, in our Indian gaols especially, to show that enforced abstinence from opium is not followed by any deterioration of the general health, but that, on the contrary, especially in the case of those who have acquired—or, at any rate, continued—the habit for mere sensual purposes, there is a marked improvement of it, and this notwithstanding the sudden withdrawal of the accustomed stimulus. Still there will be, in all civilised communities especially, amongst whom in the present day the nervous system is unduly strained, a large section of the human race to whom, dietetically and medicinally, opium will ever remain an invaluable boon. The principle of treatment under the hydropathic system is to eliminate, soothe, and strengthen. The remedies used by the allopathic practitioner to fulfil the same indications would probably be, simply, a suitable purgative, opium and quinine. One often hears it said by those who are no believers in a redundant pharmacopœia, that, with the two last-named medicines and castor-oil, they would readily do battle with all curable disorders. There could be no better evidence in favour of opium.

Clapham Common, S.W.

NUMBNESS AFTER MORPHIA.—Dr. Jones calls attention in the *New York Med. Record*, December 31, to the fact that even after mild anodyne effects produced by morphia, a sensation of numbness is not infrequently felt in the foot or hand, sometimes of one arm, and occasionally of one side of the body. It is compared by patients to the part being “asleep,” though the painful “awakening” is absent. The side on which the patient usually sleeps is the one usually complained of; and the patient is sometimes alarmed at what he supposes to be premonitory symptoms of paralysis, and the subjects of hysteria make convenient use of the sensation. Male patients not infrequently complain of this numbness.

CEREBRAL PATHOLOGY.—The latest general pathological propositions relating to the encephalon have been given by Dr. Seguin (of New York) as follow:—1. Lesions of the base (especially if involving the pons and crura) give rise to the following symptoms: paralysis, anæsthesia of the face and limbs, impairment of the equilibrium, and changes within the eye. There are no psychical symptoms. 2. Lesions of the great basal ganglia probably produce no symptoms unless encroached upon by the internal capsule which passes near them. 3. Lesions of the white centre of the hemisphere produce no symptoms when they do not involve the parts composing the internal capsule. If the anterior portion of this capsule be injured, we observe paralysis; if the posterior part, anæsthesia. 4. Lesions of the cortex cerebri produce, when located anteriorly, psychical symptoms; when located in the median regions, paralysis of an imperfect kind; and when situated posteriorly, no symptoms at all. 5. Lesions of the cerebellum produce no symptoms except by involving adjacent parts containing important motor and sensory tracts, thus giving rise to irregular paralysis, changes in the optic apparatus, symptoms of irritation of the vagus nerve, etc. 6. Lesions of one half of any part of the encephalon produce motor and sensory symptoms in the side of the body opposite to the lesion. When the lesion is in one half of the basis cerebri some symptoms are found on the side of the face and head corresponding to the lesion, others on the opposite half of the body. 7. Lesions on the median line cause symptoms to appear on both sides of the body. 8. Any intracranial lesion which acts in such a way as to increase the intracranial pressure, may produce, in addition to other symptoms, the condition known as choked-disc or neuro-retinitis.—*Louisville Med. News*, January 7.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ROYAL FREE HOSPITAL.

CASE OF TYPHOID FEVER ATTENDED BY 'EXTENSIVE ULCERATION AND PERFORATION OF RECTUM.

(Under the care of Dr. COCKLE.)

[Notes by R. BROOKES, House-Physician.]

SARAH L., aged twenty-eight, was admitted into the Royal Free Hospital ("Boys' Ward"), October 17, 1881, suffering from typhoid fever. The patient, a general servant at a public-house, never had any previous illness, but was always strong and healthy. Two weeks ago her mistress noticed that "she was not quite right in her head," forgetting everything told her, and labouring under strong delusions. A week ago she had an attack of diarrhoea—five or six watery stools per diem; the attack commenced with rigors and vomiting.

The patient is a healthy-looking woman; excited in manner; complains of headache and a general feeling of lassitude. Tongue furred and dry. Temperature 101.6° , going up in the evening to 103° . No spots; no enlargement of liver or spleen; slight tenderness on pressure over whole of abdomen below the umbilicus; motions pale yellow, watery, and very offensive. Milk diet.

October 18.—Passed a very restless night, talking in her sleep. Complained of sore throat; tongue very dry, beginning to crack; breath very foetid. Temperature 100.2° in morning, 103.4° in evening.

From this date to the 21st there was very little change in her general condition. The temperature on the evening of the 21st reached 105° , gaining that altitude by the ordinary gradations. Bowels open once a day. Very little sleep; more delirium at night.

23rd.—Temperature 104° , not having been below that for three days; the highest it reached was 105.6° . Tongue thickly coated and dry; delirium very wild; great difficulty in keeping her in bed; motions and urine passed unconsciously.

From this date to the 29th there was little change, except the gradually increasing exhaustion, the temperature falling, as it rose, step by step to 101° . Marked dicrotism; respiration hurried; mucous râles at both bases.

31st.—Temperature fell to 99° ; exhaustion extreme; pulse barely perceptible at the wrist; marked floccitation; low muttering delirium. Ordered æther. sulph. $\mathcal{M}\text{xv}$. every hour, champagne $\mathfrak{z}\text{ij}$. every hour, milk and Brand's extract every half-hour.

November 2.—Temperature suddenly went up to 105° , but fell two hours later to 100° . Pulse improved; taking nourishment well. Slight twitching of hands; conscious at intervals.

3rd.—Temperature 103° ; feeling much stronger; pulse fuller; marked meteorism. Ordered turpentine stupes. Slight nausea; no sickness.

5th.—Temperature kept between 102.6° and 101° . Slept two or three hours.

7th.—Passed two small blood-clots in the motions for the first and only time; very slight pain in abdomen; meteorism gone.

9th.—Much improved in appearance; taking nourishment well. Medicine stopped, as it caused nausea. Sleeping well.

10th.—Temperature keeping about 102° ; bowels open three times a day.

12th.—Diarrhoea; five motions in twenty-four hours. Ordered enema opii $\mathcal{M}\text{xxx}$. Very restless; cough more troublesome.

13th.—Complained in evening of severe pain in abdomen, chiefly in the lower part, coming on suddenly after a severe attack of coughing; became completely collapsed a few hours after; and, in spite of every effort to rouse her, she died at 1.30 a.m. on the 14th.

Autopsy, thirty-six hours after Death.—Marked emaciation. Rigor mortis well marked. Abdomen distended, chiefly post-mortem. On opening the abdomen a small

quantity of gas escapes. The intestines, before moving, appear normal. The peritoneum of the pelvis is covered with pus, and the intestines are slightly adherent to it; no free pus found at the bottom of the cavity. There are two small perforations on the anterior surface of the rectum, about nine inches from the anus. On opening and examining the intestines from above downwards, the small intestine is seen to be healthy until about three feet from the ileo-cæcal valve, where there is a healed ulcer (typhoid?), with pigmented edges, not swollen, exposing the muscular coat. Several others a little lower down occupy the position of Peyer's patches. Three inches above the valve is one much larger, three-quarters of an inch long. The whole colon is slate-coloured; there are a great many ulcers, small in the ascending, but becoming from two to three inches in length in the descending colon, chiefly transverse, affecting the edges of the sacculi. The muscular coat is so brittle that several places were unavoidably torn in removing the intestines. In the sigmoid flexure the ulcers are smaller, but more numerous. The ulcer which has perforated is one inch long by half an inch broad on the mucous surface. The actual perforations are two very minute openings on the peritoneal surface corresponding with the ulcer. The mucous membrane of the rectum for one inch and a half up is completely ulcerated away, except a few bands which reach to the anus. Here and there are some old internal piles. The kidneys are in an advanced state of cystic degeneration, the contents of the cysts in some few cases being clear, in the majority opaque and turbid, some dark in colour, others yellow, containing altered epithelium. The two weighed twelve ounces and a half. The liver is rather large, numerous minute hæmorrhages immediately beneath the capsule, chiefly on the under surface of the left lobe. The lungs are congested (hypostatic). There are two or three small calcareous nodules in the apex of the left lung. Other organs healthy.

Remarks (by Dr. Cockle).—The subject of the case detailed, when first seen by me, manifested signs of intense nervous excitement; almost incessant twitchings of the muscles of the face, and very extraordinary hallucinations. The nervous symptoms continued in a greater or less degree throughout the entire progress of the disease. The very extensive tract of ulceration of the large intestine and the site of perforation seemed to suggest the possibility of co-existing dysenteric disease. But, opposed to such view, it was stated that the patient was in perfect health up to the time of the attack of fever (though, considering the amount of renal degeneration, this statement must be received with some distrust). Again, there existed throughout none of the symptoms that ordinarily characterise dysentery, so that the typhoid disease might be regarded as chiefly affecting the large intestine. The site of the perforation merits particular notice, occurring as it did on the anterior face of the rectum at a height of nine inches. Perforation here must be singularly rare in typhoid fever—confessedly greatly more so than in dysenteric disease. But, whatever view be taken, the laceration may be presumed to have occurred during a violent paroxysm of cough.

LIVERPOOL ROYAL INFIRMARY.

SERIES OF HERNIA CASES.

(Under the care of Mr. RUSHTON PARKER.)

Case 1.—Strangulated Inguinal Hernia—Reduction en Masse—Antiseptic Herniotomy—Fæcal Fistula Spontaneously Healed.

RICHARD J., aged twenty, admitted August 22, 1879. The patient, a farmer from Knowsley, had had a right inguinal hernia for three years, but had not worn a truss. The hernia had never given trouble until a month previously, when there had been difficulty in reducing it himself. On August 21, 1879, after a stool, he failed to reduce the hernia again, and having abdominal pains, went to bed and sent for a medical man, who also failed. The next day vomiting occurred several times, and, under chloroform, taxis once more proving unsuccessful, he was sent to the Liverpool Infirmary, where taxis under chloroform was a second time unsuccessful. Mr. Parker was sent for at ten the same night. There was now no vomiting, no abdominal distension, slight tenderness, little or no pain, but some uneasiness. A soft

swelling in the scrotum seemed to have slight impulse on coughing, but was dull on percussion, and undiminished on gentle manipulation. Although something had been reduced the House-Surgeons were not satisfied that all was fairly back; so, in spite of the absence of symptoms, the history, and the request of his medical man that the Surgeon on duty should see him that night, were responded to by immediate herniotomy under carbolic acid spray.

The sac was opened at once, and nothing but blood-stained clear fluid found in the scrotum. On searching upwards, and pulling down the neck, bowel was found constricted at the internal ring, and lying within the abdomen before being drawn down. The neck was held with the forefinger-nail and nicked with the tip of a blunt-pointed knife, and the bowel gently examined. This was found to be small intestine, moderately congested, slightly ecchymosed, but shining; and it was reduced. A superficial catgut drain was put in, and another laid from the internal ring to the lower corner of the wound, and then sutures. Wet boracic lint dressings were used. Wind passed the next day, and every day afterwards. The bowels were first moved twelve days after the operation, for the first half of which time nothing but beef-tea and a few doses of sulphate of morphia were ordered. Bread was added on the sixth day. No bowel symptoms, or any other symptoms, occurred, and the patient made a slow but perfect recovery. On the fourth day, though the wound had appeared to be healing by first intention, a little sweet pus escaped on using pressure. On the fifth the discharge was foetid, and the edges of the incision showing unnecessary inflammation, although (without always using the spray) precautions had been taken to prevent unpurified air reaching the wound from the ward at each inspection and change of dressing.

However, it was presumed that these precautions had been insufficient, though it was evident that the irritating agency had been working from within. Still the patient continued well, and the wound was now freed from sutures, made to gape, occasionally squeezed and wiped, and smeared with boracic ointment.

On the eighteenth day wind escaped from the wound, and on the day following some intestinal contents, though without a faecal odour. This ceased in a few days, though wind continued up to the end of the fifth week. The wound was healed about eight weeks after operation, the bowels having hitherto acted twice or thrice a week, and after this daily.

He was discharged on October 24, free from hernia, but he returned in a week or two with a small bubonocoele. A truss was procured at once, and answered its purpose perfectly.

In November, 1881, he was seen again, with the truss still on, the hernia not having come down since, and was advised to continue the use of it.

Note.—It is not improbable that ulceration of the bowel proceeded from the mucous surface inside, and that the septic material which got into the deep parts of the wound, eventually spreading to the skin surface, were from this source originally, as they certainly were later on while the state of fæcal fistula lasted.

(To be continued.)

CASE OF SUCCESSFUL QUADRUPLE AMPUTATION.—In the *New York Medical Journal* for January, Dr. Tremaine, U.S.A., relates the case of a man, aged thirty-five, who was brought in the winter of 1872 to the hospital at Fort Dodge with his hands and feet completely frozen. Gangrene took place, and a line of separation was formed. Refusing amputation at first, he became the subject of septicæmia. Recovering from this, under quinine, large doses of hyper-sulphite of sodium, milk-punch, and morphia at night, he consented to amputation, which was performed by the circular method, on *both hands and feet*, through sound tissue above the line of separation. The stumps were dressed with cotton-wadding by A. Guérin's method, and they had healed when this was removed in twelve days. The man was alive and well last year, exhibiting himself at a circus for a living. This case Dr. Tremaine believes to be the only instance on record in which a quadruple amputation was performed *through sound tissues* with recovery. Billroth relates a case occurring at Zurich, in which all four extremities were frozen, the patient dying without any amputation having been performed.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 4, 1882.

A FIRST AID AND AMBULANCE SERVICE FOR
THE LONDON HOSPITALS.

WE are apt, as a people, to congratulate ourselves on the extent and fulness of our hospital aid and service for the sick and wounded in London and our provincial cities and towns ; and not without considerable justification. Though as regards the distribution of our hospitals, at any rate in London, and as to their administration, many faults may doubtless be found ; and criticism on such points is, it must be allowed, freely and frankly offered. But, be our hospital system very good or very faulty, it is large and comprehensive ; while we have no system, good, bad, or indifferent, for the first care of those who by accident or illness are compelled to fall out in the battle of life. There does not exist in London, or anywhere amongst us, an organised system by which skilled care, or the means of easy and safe transport to home or hospital, can be brought to such cases. "First care" is given by the bystanders, the police, and perchance by a medical man, if one happens to be at hand ; and for transport there are the shutter, the police stretcher, and the common four-wheeled cab to choose from, or sometimes a cart or a waggon may be possible. The last is perhaps the least undesirable and objectionable means of conveyance, but all are very bad ; and we need not remind our readers that very grave and irreparable mischief can be wrought by bad transport in medical as well as in surgical cases. This want of prompt skilled aid to the sick and wounded in our streets is a blot on our hospital system, and a reproach to our boasted civilisation and self-government. But a happier day has dawned upon us in this respect. In many of the large cities of America a well-organised and very efficient hospital and accident ambulance service is provided for giving skilled help promptly in all cases of accident or sudden serious illness ; and, thanks to the energy and perseverance of Dr. Benjamin Howard, we shall very soon see a like system at work in, or at least in a part of, our vast metropolis. In a paper on this subject, which is published

elsewhere in our pages to-day, Dr. Howard observes that in London at present, "whatever the sex, age, or rank,—be the case one of cardiac syncope or apoplexy, fracture, dislocation, or 'drunk and incapable,'—whether the one or the other of the means of transportation (already mentioned) be used,—is left exclusively to the in-discrimination and convenience of the police. For the worst fracture in the most distinguished patient there is no choice in removal, except risking his reputation on the police stretcher, or his life, perhaps, in the impossible cab"; and he then describes the remedy for this deplorably true, though somewhat highly coloured, state of things. "For assurance," he says, "against volunteer maltreatment of emergency and street accident cases on the spot; against detention or rejection at the nearest hospitals; for assurance that the first care shall be prompt, exclusive, skilful, that the transportation shall combine ease with seclusion, the only resource, according to experience, is such co-operation of police, hospital, and other authorities as is implied in a hospital and accident ambulance system." The main and indispensable elements of such a system are the hospitals, the police, horse ambulance carriages, and a perfect means of communication by telegraph or telephone, or both. Some differences of working exist as to the place or places where the ambulance carriages are stationed, and as to the *personnel* of the ambulance. In some cities the carriages are kept at the hospitals, in some at the police-stations, in some at both places; and in most cities, but not all, the *personnel* includes a house-surgeon or his substitute. We may take as an illustration the system and the mode of working it as seen in New York, Boston, and Philadelphia. "The ambulances are kept at the hospitals only, horses for which, as is common to the system everywhere, are kept harnessed night and day. The *personnel* includes a house-surgeon or substitute. The ambulance summons is sent by telephone from the police-station nearest the site of the accident to the headquarters of the police, where, on a chart, is seen at once the hospital district of the address where the ambulance is required, and the telephonic summons is then forwarded to the hospital of that district. A diagnosis blank is filled up by the ambulance surgeon before removing the patient, and immediately on returning to the hospital, this, with the time of departure, arrival, return, and other particulars, is entered in a book for that purpose. If, after the necessary attention, the patient desires it, and the surgeon approves it, the patient may be transferred by the ambulance to his own home."

The question is, How can such a system be applied to such a huge metropolis as London, with its medley of city, borough, parochial, and other authorities? Dr. Howard carefully goes into the various questions that will have to be considered: as, the kind of ambulance-carriage to be employed; the location and *personnel* of the ambulances; the advisability of special ambulance-stations, which might serve as small emergency hospitals for outer London; the form and source of the ambulance summons; the relation of the police to the ambulance system; the cost, and how it is to be met; and the authority by which the ultimate Hospital and Accident System for London shall be controlled. All these questions will require very full consideration, and on each and all much might be said. But the system will have to be worked out and perfected by practice. We probably would not, in England, accept at once, were it offered to us, the most perfect of all possible constitutions for even a hospital and accident ambulance system for the whole of the metropolis. The plan devised by Dr. Howard for the initiation of such a system at the London Hospital is really very simple. "Nearly equidistant, and in different directions from the London Hospital, there are," he points out, "eight police-

in accordance with it, each of these stations, formerly in telegraphic connexion with Scotland-yard, are now, by the cordial co-operation of Sir Edmund Henderson, being connected also with each other, so as to form a distant, but complete, telegraphic ring around the Hospital. Tapping this circle at one point—viz., the nearest police-station—by a telephonic wire thence to the Hospital, it will be seen how the entire area round about the Hospital is brought into direct communication with it. The cost of this wire for the first three months, I am given to understand, will be nothing; afterwards, by special concession, below the usual rates. As one of the privileges of subscribers, and at no extra cost, this telephone may be connected at any moment with that of every other subscriber. Thus, every policeman within the London Hospital area, having the addresses of said subscribers within his beat, from the nearest private instrument of the already many hundred subscribers the ambulance summons may be sent direct to the Hospital.' It is hoped that this plan will soon be in working order. The ambulance carriage, already provided by the Vice-Chairman of the Hospital Committee has been invented by Dr. Howard, and seems to be a singularly perfect and suitable apparatus, though, like the other parts of the system, it has to be tested by actual working. We will not now discuss any of the questions of management and arrangement already alluded to. They will, we may hope, be well considered, or machinery for their full discussion be provided, by the public meeting being held as we go to press, "to consider the advisability of forming a hospital and accident ambulance service for the metropolis"; and we shall return to the subject again next week. The location of the ambulance carriages will be a difficult matter to settle, and so will the question of who shall pay the cost? or, rather, *how* shall it be paid? for it must come from the public somehow. If the carriages are to be kept, in sufficient number, fully equipped, and always ready for action, at the hospitals, much additional room—not always easily found—will be required, and a great additional expense will be entailed on the charity. But these and other questions will be considered, and settled practically ere long, for the cruel, though not heartless, want of a system of prompt, skilled, authoritative aid to accident emergencies in our busy daily life having been clearly brought before the public, the matter will not rest till the want has been supplied.

THE CASE OF DR. ABRATH.

LAST week we very briefly noticed a case which seemed to us to convey a useful warning to our medical brethren, and now we must refer to another which is certainly not less instructive. At the recent sitting of the North-Eastern Circuit Court in Newcastle there were tried, before Mr. Justice Mathew, Dr. Abrath, of Sunderland, and a man named McMann, for conspiring to defraud the North-Eastern Railway Company. McMann, who was in a very low station of life, had been in a railway accident on the North-Eastern. It was not denied that such an accident took place, but it was described as slight; it was not denied that some persons were hurt, but none were supposed to be seriously injured; and it was admitted by the witnesses brought forward on behalf of the company that McMann had been shaken out of his seat. He did not greatly complain at the time, and next day he was at his usual avocations. He even carried a considerable weight of iron on his back. However, something led him to consult Dr. Abrath, who saw and attended him; and the man seems to have rapidly got worse. Steps were taken against the company, whose medical officers came, and saw and examined

McMann; the result being that the threatened action was compromised, and a sum of over £700 was paid to Dr. Abrath on McMann's behalf. Of this sum very nearly £300 was settled on McMann, Dr. Abrath being one of the trustees.

Now comes the peculiar part of the business. Several of McMann's friends, who had expected a share in the company's spoils and been disappointed, turned round and affirmed that McMann had all through been shamming; that he had been put up to this by Dr. Abrath, who had supplied him with money during his supposititious illness, and had, to bear out the assertion of serious injury, renewed or produced severe wounds over McMann's sacrum; that McMann's sickly appearance had been produced before the visit of the company's medical officers by low diet and purgatives, and that McMann was quite well during the intervals; that the dressing of the wounds by Dr. Abrath caused McMann intense agony, but that Dr. Abrath had said that this was absolutely necessary to deceive the company's medical examiners. Of course these men had been prepared to swear to the clean contrary some time before, and their evidence had been taken down at that time. McMann had been very carefully examined by the medical practitioners sent by the company, one of these being Mr. Wheelhouse, of Leeds. They did not seem very well satisfied, but apparently they had recommended the company to compromise, and it is not quite clear that they had decidedly altered their opinion at the time of the recent trial. On the other hand, some very strong medical evidence was given on behalf of Dr. Abrath and McMann. So that practically the company went into court with the evidence which had already induced them to compromise the case, *plus* that of some men who, according to their own showing, were ready to perjure themselves for a few pounds or shillings. Of course it was for the company to decide on taking such a step as prosecuting these two men, and probably they would never have taken it had it not been for reasons best known to themselves; and it is not at all unlikely that such action was taken rather as a warning to others than with any great hopes of legal success.

We all know that railway companies have much to answer for. But we know that they are often victimised, and we know that juries are apt—not without good reason—to show them little mercy. Hence it comes about that the position of a medical witness in a railway case is seldom one of much enjoyment; he is pretty sure to be badgered by one side or the other; all kinds of questions will be put to him which he will find it hard to answer conscientiously, for they are often questions of much difficulty, and any endeavour to make this plain is too often looked upon in courts of law as a sign of weakness, or evidence of imperfect knowledge of one's profession. A hard swearer gets out of this difficulty easily enough, but hard swearing is not always safe with a well-skilled prompter sitting at the elbow of opposing counsel.

These things are common to all trials of the kind; but medical men may do themselves irreparable injury by such procedure as that adopted by Dr. Abrath in the first instance. He seems, when McMann first called upon him, immediately to have taken the case up, either by himself or in conjunction with a lawyer, in a way that might be thought to bear the appearance of speculation. It was quite evident that a man in McMann's position could never hope to pay for a prolonged medical attendance; consequently, if Dr. Abrath hoped ever to be paid, it must have been by the railway company. Of course, we cannot say, on the evidence given in court (which, as we have seen, was altogether unreliable), that Dr. Abrath advanced money for McMann's support; and whoever did so could only hope to be repaid by the company. But Dr. Abrath ren-

dered matters still more suspicious against himself by receiving the money from the company when the action was compromised, and therein, as in certain other matters, acting as McMann's monetary agent. In all this, Dr. Abrath, we repeat, may have been actuated by the purest motives, but it is equally plain that such a course of procedure lays a man, however innocent, open to suspicion. And this is the moral of our tale: Let medical men do their duty as becomes members of our profession; it is quite sufficiently unpleasant, but do not let them cast abroad for sources of that worry and annoyance which too often come unbidden. Had Dr. Abrath followed this plan he would have been spared much mental anxiety, and that most unpleasant experience—standing in a dock on a criminal charge.

EXTIRPATION OF GOÏTRES.

DR. WÖLFLEER contributes to the *Wien. Med. Woch.*, No. 1, 1882, some statistical details of the cases in which Professor Billroth has performed the operation for extirpating goitre. He commences his short paper with the remark that one of the most interesting and profitable of surgical inquiries consists in casting a critical eye over the results, obtained by skilful hands, in surgical operations which but a short time ago were never thought of. Not only does the surgeon call to mind the interesting clinical points in each case, but he impresses on his memory the valuable experience which each case afforded, out of which gradual improvement in the modes of operating is derived. The author on this occasion, as already remarked, keeps strictly to statistics, reserving for a future occasion the detailed history of the cases. Thanks to antiseptic surgery, Professor Billroth has felt himself justified in resuming this operation and of developing it during the past five years. Within this period he has performed 58 operations on 55 patients (in three cases a second operation was necessitated in consequence of recurrence). Of the 55 patients, 48 were cured and 7 died. This gives a mortality of 12·7 per cent. In two of these fatal cases death resulted from causes apart from the operation; in one in consequence of bursting of an aneurism of the aorta; in another from peritonitis. Among the remaining 53 cases, there were 5 of malignant disease of the thyroid. Of these 5 cases 4 recovered from the operation, while the fifth died after tracheotomy had been performed, of asphyxia, dependent on extensive recurrence. All these cases, indeed, might be excluded, as extirpation of the thyroid, on account of malignant growths, differs both in the method of operating and in prognosis from cases of goitre. Thus, 48 patients remain, of which 44 were quite cured. Comparing the results (of the goitre cases proper) with others obtained in the pre-antiseptic period, the following facts are shown:—From 1860 to 1876 there was a mortality of 36·1 per cent.; while during the years from 1877 to 1881 the mortality was 8·3 per cent. As regards the performance of tracheotomy in these 48 cases, in 5 only was it called for, either before, during, or after the operation. Of these 5, 3 died and 2 recovered. Thus of the 43 cases in which tracheotomy was not necessary only 1 died, which is a percentage of only 2·3 per cent. for non-tracheotomised patients. From this it may be concluded how much more severe those cases are in which at the time of the operation there is tracheal stenosis. Of the 48 cases, 15 were males, 33 were females. Among the latter the operation was undertaken in several instances on "cosmetic" grounds. The oldest patient was sixty-five, the youngest (a girl) only twelve. Age seemed to exert no unfavourable influence. Concerning the mode of operating it may be stated that in 2 cases the gland was shelled out of its capsule, 1 of which was fatal; in 24 cases only one-half of the gland

was removed, with 1 fatal case; and in 22 cases the entire gland was removed, with 2 fatal cases. The average duration of the after-treatment in the favourable cases was 21·8 days. The recurrent laryngeal nerve seems to have been interfered with (as shown by laryngoscopic examination) in 11 cases on one side; in 2 cases on both sides; and in 31 not at all. Of these cases of one-sided paralysis of the cords, it must be mentioned that the patients recovered perfectly in the course of time, and that in 3 of the 11 the paralysis existed before the operation. In 1 of the 2 cases of double-sided paralysis of the cords, which died of tetanus three months after the operation, a post-mortem examination failed to show that the paralysis depended on injury of the recurrent laryngeal nerve. We shall look forward to the promised details of these interesting cases, which are apparently so much more frequent in Vienna than in London.

THE WEEK.

TOPICS OF THE DAY.

A CONFERENCE of members of the Charity Organisation Society, especially interested in convalescent work, and others connected with convalescent institutions, was recently held at the offices of the Society, to receive information and statements of experience. The Central Committee had issued questions, to which answers, so far as they could be given, were invited: these referred to the boarding-out of children in the summer; co-operation with convalescent homes; co-operation with hospitals, with a view to sending suitable out-patients to convalescent homes; and the placing of girls and young women who required change of air in private houses or lodgings under the care of ladies. What the questions and the conference aimed at was, the formulation of the best possible arrangements for promoting convalescent work, and the conditions under which each class of cases should be dealt with in regard to investigation, medical certificates, and other details. The result of the conference was the adoption of two resolutions. The first embodied the opinion that it should rest with the special committee on convalescent work to make arrangements for the boarding-out in the country of children for the maintenance of whose health, in the opinion of a district committee, change of air was essential. The second declared that it was shown by the evidence laid before the meeting that the information provided by the central office was very useful; that accommodation was required for men and lads of a better class, and for consumptive and infectious cases; and that, owing to the difficulty of obtaining satisfactory certification, it was desirable that each district committee endeavour to secure the assistance of a medical man. The conference having thus indicated the general principle upon which the work is to be carried on, the Central Committee will prepare the regulations under which cases are to be dealt with.

A somewhat singular incident is recorded in connexion with the method adopted for the disposal of the bodies of paupers who die in the Sheffield Workhouse. The Guardians' regulations require that the licensed teacher at the Sheffield Medical School shall send a written notice for each body, but this regulation, it would appear, has not been observed, and it has become the custom for the Medical School at the commencement of each session to give the Master of the Workhouse a standing order to send all the unclaimed bodies for dissection. The Guardians also require the Medical School authorities to produce certificates of burial to the Master of the Workhouse, but these certificates have been forwarded to the Government Inspector in London, in accordance with the requirements of the Anatomy Act. In

the present case the body of a man, aged thirty-six, was sent off to the School in mistake for that of an aged pauper of seventy-five; and the mistake was only discovered when the wife of the former man, on attending with his relatives to take away his body for burial, succeeded, after much entreaty, in getting the coffin opened that she might "take a last look." The widow then complained to the Guardians that the body bore marks of having been operated on, and a full investigation was ordered. The licensed teacher at the Medical School stated positively that, beyond shaving the face and head, nothing was done in the way of dissection, although, if a message had not been received, announcing the mistake which had been made, the body would have been dissected, as there is no provision for identifying the body received with the person mentioned in the certificate. The Master of the Workhouse asserted that an assistant, on the eve of his discharge, tampered with the labels attached to the bodies in the dead-house, and so occasioned the mistake. The Local Government Board has instituted an inquiry into the case.

When we consider the agitation of the anti-vaccinationists in this country, it is satisfactory to be able to note the progress of compulsory vaccination abroad. The *Sanitary Record* states that an Act for this purpose has been passed by the Parliament of Tasmania, and assented to by the Governor. Twelve thousand persons in South Australia have been vaccinated during the last two months. The registered number of vaccination cases performed successfully on children under fourteen years of age in New Zealand is as follows:—In 1877, 10,746; 1878, 11,495; 1879, 12,384; 1880, 13,628. The National Council of Switzerland, at its general meeting in December last, held a discussion on the law of epidemics, which terminated in the adoption of the principle of compulsory vaccination by ninety votes against twenty-three. The Articles 13 and 14 of the law now stand as follows:—Article 13. Every child born in Switzerland should, according to law, be vaccinated in the first year of its life, or at the latest in the second. A longer delay is not permissible, except for hygienic reasons certified by a medical practitioner. Children born in other countries and not vaccinated when brought into Switzerland are placed under the same regulation. The vaccination is to be certified by a registered medical practitioner. Article 14. No child can be allowed to enter any public or private school unless he possesses this certificate.

Some complaints having reached the Local Government Board of alleged irregularities in connexion with the medical administration of the Birmingham Workhouse, Mr. Henley and Dr. Mouat were despatched to that town to hold an inquiry. In opening the proceedings, Mr. Henley said he proposed, with Dr. Mouat, to visit the workhouse during the month of February, and then go into the subject of the medical administration. Upon the present occasion he should only go into the cases of alleged ill-treatment towards the paupers Peters and Skett. The allegations were to the effect that the inmates in question were repeatedly and unlawfully punished by order of the medical attendant for unruliness or other misconduct, by being subjected to shower-baths and blisters, and that no record was kept of these punishments. Several medical officers of the workhouse, past and present, denied that they had ever ordered the baths or blisters for punishment, but solely for medical treatment, and Dr. Robinson's evidence suggested the origin of the present allegations, since he stated that he had heard both nurses and pauper assistants threaten shower-baths to the patients as punishment. At the termination of the inquiry, which lasted two days, Mr.

Henley said it was perfectly clear that the workhouse had outgrown the regulations laid down for the guidance of the officers; in fact, it was impossible for the officers to perform their duty if they strictly adhered to the regulations. Therefore the Local Government Board, in dealing with this case, would certainly give due consideration to the very great difficulty the officers had had to contend with in the management of the workhouse. In the evidence that had been given at this inquiry, certainly no case of cruelty had been proved.

A case of some importance was recently heard at the Hammersmith Police-court, in which a chemist at Kensington appeared to answer a summons, obtained at the instance of the Criminal Investigation Department, for an infringement of the Poisons Act. Inspector Jones purchased at defendant's shop two bottles of a patent medicine known as "Hunter's solution of chloral," neither of which bore any poison-label upon it. Dr. Dupré, Professor of Chemistry at Westminster Hospital, proved the poisonous nature of the preparation—the larger bottle being found to contain 264 grains of hydrate of chloral, and the smaller one about 88 grains. A quantity of thirty grains of this article had once proved fatal, and several deaths had followed a dose of thirty-eight grains. Mr. Poland, who appeared to prosecute, and Mr. Besley, for the defendant, had a long argument as to whether the Poisons Act was applicable to patent medicines, the latter gentleman contending that the preparation in question was not an article deemed to be a poison, and that directly the Government stamp was placed upon it, the solution no longer came within the operation of the Act. The magistrate, however, decided against Mr. Besley, since he was of opinion, on the medical evidence, that it was a poison. He fined defendant 40s. and 2s. costs. On the application of Mr. Besley, a case was granted for the opinion of a superior court.

It is stated that in Armley Gaol, at Leeds, there are several prisoners suffering at the present time from small-pox. The first case occurred about a week ago, and terminated fatally, and the man who prepared the body for interment has since been attacked with the disease. Every precaution against its further spread has been taken by the officials under the direction of the Home Office, and it is not thought likely that there will be any further addition to the number of cases. As it is believed that the Leeds magistrates have the power to commit their prisoners to Wakefield Gaol, it is announced that for the present that course will be adopted.

At an inquest recently held at the Black Prince Tavern, Chandos-street, Strand, the jury, all of whom were ratepayers, entered a strong protest against the action of the Vestry in refusing the use of their hall for the holding of inquests. Such investigations, they contended, ought not to be held in a public-house; ladies, who were sometimes required to attend these inquiries, having to wait in a place totally unfitted for them. The coroner's officer stated that the refusal of the Vestry was due to one or two of the guardians of the parish, and the jury unanimously condemned their conduct. This is a subject which might, with great advantage to the public, be generally ventilated. It is quite time that at least all the wealthy parishes of the metropolis should be possessed of a building for holding these inquiries. It is not seemly, to say the least, to require a coroner, medical practitioners, and respectable witnesses, to assemble in a public-house smoking-room, to hold a legal inquiry always of serious, and not seldom of the gravest, character and importance.

A meeting of residents in Camberwell was recently held with a view to support the Camberwell Vestry in its efforts to obtain the removal of the Small-pox Hospital from

its present site at the Old Kent-road end of Hatcham. Mr. F. Dunn moved—"That this meeting pledges itself to support the Camberwell Vestry by every possible means to secure the closing of the Deptford Small-pox Hospital at Hatcham, and will enlist the concurrence of the inhabitants in order to effect such a consummation." This resolution was carried, as was also another, calling upon the Rate-payers' Association of No. 4 Ward to open a public subscription to obtain an injunction against the Metropolitan Asylums Board. Few people could have imagined that the Hampstead Hospital decision would produce such disastrous opposition to the efforts of the Asylums Board to cope with the small-pox epidemic in the metropolis.

The Infectious Diseases Hospitals Commission has held several meetings at the House of Commons, and amongst other gentlemen examined were Dr. Archer Farr, late Medical Officer of Health for Lambeth, and Dr. Collier, Medical Officer of Health for the Fulham District.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

At the ordinary meeting of the Royal College of Physicians, held on January 26, after the minutes of the preceding meeting had been confirmed, the President of the College called attention to the almost *verbatim* reports which had appeared in some of the medical journals of the speeches made at the last meeting of the College, and expressed, for himself and others, the opinion that such a proceeding was calculated to prevent free discussion, and that the practice was contrary to all precedent and most undesirable.

Permission was granted to hold, in the College Library, a meeting of persons interested in the promotion of scientific researches, with the view to establish a society. Permission was also granted to the General Committee of "The Rolleston Memorial Fund" to hold a meeting in the Library.

A communication was received, announcing that a Medical Congress will take place at Seville on April 9 of the present year.

The following Fellows were elected members of Council, in room of four members who retire in rotation:—Dr. Acland, of Oxford; Dr. W. Wood, of Harley-street; Dr. W. Roberts, of Manchester; Dr. Graily Hewitt, of Berkeley-square.

The annual report of the Examiners was received. It appears that the number of candidates for the licence of the College had considerably increased during the year; and the increase was especially noticeable in the number of those who presented themselves for the first of the three examinations which the College now requires all candidates to pass. In 1880 there were 57 candidates at the first examination; while, during 1881, 367 candidates presented themselves, of whom 258 were approved, and 109 were referred for three months. At the second examination, 46 candidates presented themselves, of whom 20 were approved, and 26 were not approved. At the final examination, 116 candidates were examined during the year; and 90 succeeded in obtaining the licence of the College, while 26 were referred for six months' further study.

CLINICAL SOCIETY.

An interesting discussion followed the reading, on January 27, before this Society, of three papers on Operations on the Kidneys. The cases narrated were not all exactly parallel: for in two of them the kidney substance appeared healthy, the operation having been undertaken in each of them for the removal of a calculus; while in the other cases, besides a calculus, the kidneys were much dilated and diseased. We reserve further comment on them for a future number of the journal. The reports of the cases appear elsewhere.

M. PASTEUR'S EXPERIMENTS ON SHEEP.

At a farm near Méhun, in France, experiments were recently made by M. Pasteur, in the presence of a large number of scientific gentlemen, on the duration of the action of anthratic vaccine as applied to sheep. It will be remembered that six months ago M. Pasteur vaccinated a number of sheep with anthratic vaccine, the immediate result being to preserve all those sheep from anthratic virus, whereas sheep not so vaccinated succumbed within twenty-four hours. The question was, how long the influence of such vaccination would last. The recent experiments referred to proved that it lasts six months; and it has been decided to continue like testings from month to month, in order to ascertain, if possible, the exact duration of the protective influence. On the Thursday previously, four unvaccinated sheep were inoculated with anthratic virus, as also four of the sheep vaccinated six months ago. Two of the unvaccinated sheep expired within twenty-four hours, and the other two subsequently; whereas the sheep vaccinated six months ago effectively resisted the action of the virus. Another noteworthy fact was ascertained: a lamb, the offspring of a vaccinated sheep, was inoculated with the virus; it expired within twenty-four hours,—thus proving that the protective influence through "vaccination" is not transmitted hereditarily in this instance, any more than is the similar protective power of vaccine lymph. The Seine-et-Marne Agricultural Society presented M. Pasteur with a gold medal; and a banquet was held, at which the great service rendered to agriculture by his discovery was warmly testified to.

MIDLAND MEDICAL SOCIETY.

AN ordinary meeting of the Midland Medical Society was held at Birmingham on Wednesday, January 18, J. Manley, Esq., President, in the chair. Dr. Barling exhibited a specimen of latent fracture of the tenth dorsal vertebra, with pachymeningitis externa, in which symptoms were absent during life. The pedicle on both sides of the bone was seen to be broken close to the body, and the spine was tilted a little downwards; the fracture also extended transversely through the middle of the body of the same vertebra without causing displacement, and without rupturing the anterior or posterior common ligaments. On the external surface of the dura mater, opposite the seat of fracture, there was a deposit of lymph the size of a shilling. The other membranes and the cord itself were quite healthy. The specimen was taken from a middle-aged man, who, when driving under an archway, bent forward to avoid striking his head; the arch, however, caught his back and doubled him up. Scarcely any pain was complained of in the back, but the interval between the ninth and tenth dorsal spines was a little exaggerated. Death resulted eighteen days after the accident, from injuries to the thorax which set up pleurisy and pericarditis. Dr. Barling also showed a specimen of fracture confined to the anterior fossa of the skull, in which during life there was severe hæmorrhage from the nose, and, a few hours after admission into the General Hospital, Birmingham, a small quantity of clear fluid was discharged from the left auditory meatus. This continued for the thirty-six hours of life following the accident. At the post-mortem considerable brain-laceration was found, no fracture of the petrous portion of the temporal bone, but a rupture of the left membrana tympani existed. It was therefore concluded that the fluid exuded during life was secreted by the lining membrane of the tympanum. Dr. Warden read a paper, and exhibited a patient, aged fifteen, upon whom the supra-condyloid operation for genu valgum had been performed on both limbs. Instead of strictly following D. Macewen's method of operating, the wound was made above

the external condyle, and the femur divided with the three osteotomes from without inwards. The result of the operation was very satisfactory, the patient being able to approximate the feet and the knees at the same time, whereas formerly the malleoli were separated by an interval of twenty-four inches. A discussion followed, in which Messrs. Furneaux Jordan, Freer, Jordan Lloyd, Chavasse, and Barling took part.

LONDON SLAUGHTER-HOUSES.

At a meeting held in London, on Saturday, the 23th ult., under the presidency of Dr. B. W. Richardson, a movement was publicly inaugurated, and a society founded, with the excellent object of ventilating in all its bearings the question of the London slaughter-houses. As we lately took occasion to express a strong opinion on the inadequate provision made for detecting bad cases of disease among cows and other animals sent to the butcher, it is unnecessary for us to say that the Society presided over by Dr. Richardson, and aided by the valuable counsel of Mr. Fleming, of the Army Veterinary Department, has our most cordial approval. The slaughter-houses in London were put down by a speaker at the meeting at the incredible figure of 1400 to 1500. Only those who have succeeded in penetrating into their dark interiors can estimate the number of shady transactions and the amount of lax practice that these figures represent. The Society's main object may be said to be the establishment of public slaughter-houses; efficient detection of disease, and humane treatment of animals, would certainly come with publicity, but they are hardly attainable without it. The Society will have, as usual, to combat various narrow and short-sighted "interests," and it has probably several years of that uphill work before it. By the time that the Municipal Government of London is an accomplished fact, the people of the metropolis will have become sufficiently alive to the carelessness and ignorance that reign in the multitude of private shambles; and no doubt the establishment of great public *abattoirs* will be one of the first acts of the new Municipal Council.

THE PARKES MUSEUM.

AN important meeting of the Executive Committee of the Parkes Museum was held on Friday, January 27 (Professor Berkeley Hill in the chair), when Mr. Basil Field was appointed Honorary Solicitor to the Museum. The Curator, Mr. Mark H. Judge, as Secretary of the recent International Medical and Sanitary Exhibition, presented the final report of the Exhibition Committee, which, after giving a detailed account of the origin and success of the undertaking, concluded as follows:—"The work for which the Exhibition Committee were appointed having now come to an end, they have the satisfaction of handing over to the Executive Committee of the Museum the sum of £933 11s., together with furniture and fittings to the value of £100, while contributions to the guarantee fund to the amount of £36 19s. have been transferred to the Parkes Museum Building Fund, making the financial result of their labours a profit to the Parkes Museum of £1120." The report was signed by Mr. John Eric Erichsen, F.R.S., the Chairman, and the Secretary. On the motion of Professor Hayter Lewis, seconded by Dr. W. R. Gowers, it was unanimously agreed that the report was eminently satisfactory, and that it should be entered on the minutes. The Honorary Secretary, Dr. G. V. Poore, read a communication from the Council of University College, in which that body agreed, with some modifications, to proposals which had been made on behalf of the Museum to the Council of the College in reference to the erection of a building for the Museum. After a long

discussion, in which Professor Berkeley Hill, Professor Hayter Lewis, Dr. W. R. Gowers, Professor Corfield, and Mr. Rogers Field took part, the modifications suggested by the Council of University College were accepted, and it was resolved that steps should be taken to obtain the funds necessary for carrying out the scheme, which embraces (1) the building of an addition to the north wing of the College for the purposes of the Museum; (2) an endowment for the maintenance and management of the Museum; (3) the Museum to be open free to the public, and to be placed on a somewhat similar footing to the North London Hospital, *i.e.*, to be autonomous, with due representation of the Council of University College on the Executive Committee of the Museum. It is estimated that £30,000 is the sum that will be required to thus permanently establish the Museum as a national institution. Towards this, Mr. Thos. Twining, of Twickenham, had written to say that he would subscribe the sum of £100 if one hundred promises of a similar amount were obtained. Promises of subscriptions may be sent to the Curator at the Parkes Museum, University College, Gower-street. Subscriptions may be paid to the account of the Parkes Museum, at the Union Bank, Argyll-place, Regent-street, W.

TREATMENT OF SNAKE-BITE.

DR. VINCENT RICHARDS (*Indian Med. Gaz.*, January) states that, apart from his paper, which we noticed last week, he wishes to offer the following suggestions as to the treatment of snake-bite:—1. In the case of the bite being on a limb, a ligature should be at once applied above the bitten part, care being taken that it is sufficiently tight to prevent any blood being taken up into the general circulation from the distal end; give a full dose of opium (forty minims of the tincture, or half a grain of morphia) hypodermically. 2. Inject hypodermically into the bitten part a solution of the permanganate (one grain to a drachm), and well press the part with the fingers. 3. Open a vein below the bitten part, and wind round the limb an elastic bandage, so as to exsanguinate the limb below the bitten part. 4. Cut through the bitten part, and, when dry, apply pulverised permanganate, and then loosen the ligature. In the case of a person bitten on the trunk, any treatment, however prompt, may be useless; but it would be well to inject the part with the permanganate, and give a full dose of opium. "It may not be generally known to the members of the profession that a *poisonous* bite may be easily ascertained by cutting through the punctures into the areolar tissue beneath, when, if a red-currant-jelly-like appearance be observable, the bite is poisonous. The merit of pointing out the diagnostic value of this local appearance is due to Dr. Wall."

THE DARENTH SCHOOLS AND ASYLUM FOR IMBECILES.

IN the sixth annual Report of the Committee for Darenth Schools and Asylum for Imbeciles, to December 31, 1880, the Medical Superintendent of the Schools, Dr. Fletcher Beach, remarks that, with the exception of one case of scarlet fever, the children have been entirely free from contagious disease. To some extent he attributes this to the distance of the schools from London, but more especially to the excellent measures adopted by the Committee for the separate treatment of patients suffering from such diseases. The one child attacked with scarlet fever was at once sent to the detached infirmary; strict quarantine was enforced, and the disease did not spread. The general health of the inmates, Dr. Beach says, has been good, notwithstanding the large number of epileptics, feeble and helpless cases, and young children—more than half the children (244 out of 464 cases) belonging to these classes. The chief regret expressed, however, is that the building is becoming more

and more a receptacle for the care of helpless and epileptic imbecile children, and is losing in the same degree the character of a training-school; so that if these cases continue to be sent in such large numbers, there will in course of time be few left to profit by the peculiar instruction imparted at Darenth. The tables accompanying the Report show the assigned causes of mental disorder of those patients admitted during the year under notice. Among the congenital causes, fright, worry, trouble and anxiety of the mother during pregnancy, and tedious or difficult labour, either separately or combined, play a most important part; while among the acquired causes, epilepsy, convulsions, injuries or disease of the brain of the child, are chiefly noticeable. The report of Mr. Dyer, the Medical Superintendent of the Adult Asylum, calls for little comment. "We have," he says, "had no very severe illness amongst the patients during the year, but the class of cases in this Asylum is not hopeful; and on December 31 last, out of 223 patients, sixty are reported epileptic, sixty-six as wet and dirty, and thirty as quite helpless, besides sundry cases of senile dementia and paralysis."

MANCHESTER MEDICO-ETHICAL ASSOCIATION.

THE thirty-fourth annual meeting of this Association was held at the Grosvenor Hotel on Friday, January 27. The report of the Committee showed the growing prosperity of the Association, the number of members and the funds having steadily increased. The following is a list of office-bearers and Committee for 1882:—*President*: Mr. Hardie. *Vice-Presidents*: Mr. Dacre Fox, Dr. John Roberts, Dr. Henry Simpson, Dr. Stevenson. *Treasurer*: Dr. Joseph Stone. *Secretaries*: Dr. A. Wahltuch, Mr. J. Broadbent. *Committee*: Dr. Barlow, Mr. Crosbie, Dr. Cullingworth, Dr. A. M. Edge, Dr. A. Emrys Jones, Dr. Mallett, Dr. Pierce, Mr. Reston, Dr. D. Lloyd Roberts, Dr. Thorburn, Mr. Walmsley, Mr. Westmorland.

THE PARIS WEEKLY RETURN.

THE number of deaths for the third week of 1882, terminating January 19, was 1179 (598 males and 581 females), and among these there were from typhoid fever 30, small-pox 21, measles 13, scarlatina 5, pertussis 4, diphtheria and croup 50, dysentery 2, erysipelas 2, and puerperal infections 5. There were also 45 deaths from tubercular and acute meningitis, 194 from phthisis, 61 from acute bronchitis, 123 from pneumonia, 78 from infantile athrepsia (29 of the infants having been wholly or partially suckled), 111 from diseases of the cerebro-spinal system, and 14 violent deaths (12 male and 2 females). The number of deaths for this week is larger than the mean of the last four weeks; but while deaths from typhoid fever and small-pox have increased, those from diphtheria have diminished. The births for the week amounted to 1274, *viz.*, 653 males (485 legitimate and 168 illegitimate) and 621 females (455 legitimate and 166 illegitimate): 95 infants (46 males and 49 females) were either born dead or died within the twenty-four hours.

A VACCINE FARM.—The Wisconsin State Board of Health owns a vaccine farm near Fond du Lac, under the charge of its President, Dr. Griffin, of that city. During two weeks he has produced from 60,000 to 70,000 points, which have been distributed through the North-west, where the small-pox excitement exists. At the Wisconsin farm, Dr. Griffin and his associates have vaccinated about 1000 heifers since they commenced their work of production. The most successful operations are upon light-haired heifers, those of dark colour always having tough skins. From some animals a thousand points are taken, while others produce none at all.—*New York Med. Record*, January 7.

THE DUBLIN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE fifth annual meeting of this very flourishing offshoot of the British Medical Association was held on Wednesday, January 25, in the King and Queen's College of Physicians, Kildare-street, Dublin. The chair was taken in the first instance by Dr. Banks, and subsequently by Dr. George H. Kidd, the newly-elected President. There was a large gathering of members. Dr. George F. Duffey, the very active and efficient Honorary Secretary, read the annual report of the Council, from which it appeared that the branch numbered 168 members. The strange fatality which in a few short months deprived the Branch of its President (Dr. Hayden), its President-elect (Dr. McClintock), and five other members, including a valued member of Council (Dr. R. J. Harvey), was alluded to. The Council held four meetings during the year. The Bill introduced by Mr. Gray, M.P., for the Notification of Infectious Diseases in Ireland, received its careful and anxious consideration. The Council approved of making the notification of infectious diseases general throughout Ireland, instead of merely local. It also agreed that the provisions of the proposed Bill should be compulsory, and apply generally to every sanitary district, instead of its adoption being left to the wishes of any sanitary authority. It regretted that the direct method of notification by the medical attendant was that adopted in the Bill, instead of the method approved by the British Medical Association; as the Council was aware that a large proportion of the profession throughout the country strongly object to the former method. The Council, therefore, urged Mr. Gray to modify this clause in his Bill in such a manner as to make it acceptable to the bulk of the profession. This the Council believed might have been done by the adoption of what is known as the "dual method." The Council was also strongly of opinion that a fee of at least 2s. 6d. should be payable to the medical attendant for each certificate sent by him to the sanitary authority.

Mr. Gray received the opinions of the Council courteously, and expressed his willingness to accede to most of them. Owing, however, to opposition, the Bill could not be proceeded with last session. But the Council has been recently engaged, in conjunction with the Committee of Council of the Irish Medical Association, in framing a Bill, the provisions of which, it is hoped, will be acceptable to the members of both bodies, and which may be introduced next session.

The adoption of the report was moved by the Vice-President of the King and Queen's College of Physicians (Dr. J. W. Moore), seconded by Mr. George H. Porter, Surgeon to the Queen, and carried unanimously.

The Honorary Secretary read the text of the proposed Bill for Notification of Infectious Diseases, the essential features of which are that the notification is made compulsory on the occupier of the infected house; while the medical attendant may, if he shall see fit, assume the responsibility of notifying, and by doing so exonerate the occupier.

Mr. Robert McDonnell moved, and Dr. Jacob seconded, the following resolution, which was supported by the respective Presidents of the College of Physicians and College of Surgeons, and carried without opposition, namely—"That the draft Bill to provide for the better notification of infectious diseases in Ireland, as suggested by the Committee of Council of the Irish Medical Association and by the Council of the Dublin Branch of the British Medical Association, be, and hereby is, approved and adopted by this Branch; and that the Council of this Branch be authorised to take such steps as may seem to it advisable to procure the introduction of said Bill into Parliament during the coming session."

The President (Dr. Kidd) then delivered an address on "Medical Education," in which he strongly opposed the proposal for a system of conjoint examination and a uniform standard of professional education. He expressed an opinion that, in a Medical Reform Bill, penal clauses for the repression of unlicensed practitioners could not be enforced. The President's rather heterodox address gave rise to considerable comment, although of course no debate took place upon it.

The ballot for officers and Council for 1882 resulted in the election of the following:—*President*: George H. Kidd, M.D. *President-elect*: John T. Banks, M.D., F.R.C.S.P. *Vice-Presidents*: Edward Hamilton, M.D.; Lombe Atthill, M.D. *Council*: E. H. Bennett, M.D.; Thomas Darby, F.R.C.S.I.; J. M. Finny, M.D.; Samuel Gordon, M.D.; T. W. Grimshaw, M.D.; S. Haughton, M.D., F.R.S.; J. W. Moore, M.D.; E. D. Mapother, M.D.; Robert McDonnell, M.D., F.R.S.; H. R. Swanzy, M.B.; P. C. Smyly, M.D.; William Stokes, M.D. *Representatives on the General Council*: Isaac Ashe, M.D.; Thomas Darby, F.R.C.S.I.; S. Haughton, M.D., F.R.S., Clerk; James Little, M.D.; R. McDonnell, M.D., F.R.S.; J. W. Moore, M.D.; G. H. Porter, M.D.; William Stokes, M.D. *Hon. Secretary and Treasurer*: George F. Duffey, M.D., 30, Fitzwilliam-place.

In the evening the Branch dined in the large Hall of the College of Physicians, covers being laid for nearly eighty, including seven members of Parliament.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DURING the past year the large number of 11,290 persons visited the Museum of the Royal College of Surgeons. One of the most noteworthy of the recent additions to this Museum is a skeleton of the sea elephant (*Macrorhinus leoninus*), the largest of the seal tribe. The animal derives its name not only from its huge size, but also from the possession in the male of a short proboscis-like prolongation of the nose. It was formerly abundant on most of the coasts and islands of the Southern Ocean, but is now, owing to the destructive warfare carried on against it by sealers for the sake of its oil and hide, become much more rare, and limited to the most inaccessible parts of the Kerguelen and Crozet group. In the Falkland Islands it was supposed to have been long extinct, but about two years ago, Mr. H. Mansel, when riding along the coast, saw what he at first took for a boat lying upside down upon the beach. On approaching nearer he found that it was a great seal asleep. When roused, it reared itself up upon its hind quarters, and opened its enormous mouth to its fullest extent, in the manner depicted in the well-known quaint old drawing in "Anson's Voyages." Returning to the same place the next morning, the animal was again found, and despatched, and its head sent to the Museum of the College. As there was no skeleton of a full-grown specimen of this interesting species in England, Professor Flower, the Conservator of the Museum, lost no time in requesting friends in the Falkland Islands to endeavour to secure what remained of the body of the animal; and although it had lain more than a year where it fell, Captain R. C. Packe, of Stanley, was fortunate enough to be able to secure the greater part of the bones, which have now been mounted in the Museum. It is placed near, and can be well compared with, its congeners, the walrus, sea-lion, and fur-seal—fine skeletons of the two latter, also from the Falklands, having been recently added to the collection through the kind assistance of Mr. F. Coleman, Secretary to the Falkland Islands Company, who never loses an opportunity of rendering his connexion with the islands of service to the advancement of science. The extreme length of the skeleton is sixteen feet six inches. It is quite easy to imagine how such a creature, swimming through the water, with its head raised, and with a long "wake" behind caused by the action of its paddles placed at the posterior extremity of the body, like the screw of a steamer, may have been the foundation of some of the stories of the great sea-serpent, as was suggested many years ago by Professor Owen in a letter published in the *Times* on the occasion of the appearance of that celebrated monster to Captain "McQuha."

HYGIENE AT BERLIN.—From June 1 to October 1 there will be held at Berlin a most comprehensive exhibition of everything connected with hygiene and the preservation of life, arranged in the programme under no less than forty separate groups, comprehending objects, instruments, apparatus, plans, models, and printed works.

PATHOLOGICAL SOCIETY OF DUBLIN.

At the meeting of this Society, held on Saturday, January 21, 1882 (Dr. William Stokes, President, in the chair), Dr. L. Atthill showed the uterus and neighbouring parts from a woman aged fifty-eight, married, mother of a child born twenty years previously. The patient ceased to menstruate in 1875. In September, 1880, profuse uterine hæmorrhage unexpectedly occurred, and from that date bleeding went on almost incessantly. At last (in July, 1881) a severe paroxysmal and periodic pain occurred in the vagina, the left groin, and along the inside of the thighs. The uterus was enlarged and movable, but although five inches long, it admitted the sound to the depth of only two inches and a half. The os was normal in size; the cervix was somewhat thickened. A diagnosis of cancer of the fundus uteri was made, and it was resolved to remove the mass, which was done by making a free abdominal section. In the uterus a soft, semi-pultaceous mass, covered with a greenish slough, was found. This proved to be an epithelioma of the fundus uteri. The woman sank in thirty-six hours. At the autopsy, evidences of a septic peritonitis were found; the ovaries were atrophied. The stump of the uterus was adherent to some of the coils of the small intestines by recent lymph. The case was especially interesting as being the first in Ireland in which the uterus had been amputated for a primary cancer of the fundus, the os and cervix being healthy. The recognition of the nature of the disease during life is also noteworthy.

The President exhibited the intestines of a lad aged sixteen, who had been seized with violent and sudden pain in his abdomen eight days before his death. The bowels never moved after the onset of pain, and he became extremely prostrate. There was a history of hernia on the right side. Continual vomiting of foetid, almost stercoraceous, matter occurred, and the patient sank in collapse. On opening the abdominal cavity, extensive old adhesions were observed, glueing the intestines together and to the anterior wall of the abdomen. The transverse and descending portions of the colon were collapsed, but its ascending portion was dilated as far as the hepatic flexure, just below which there was a constriction. The vermiform appendix was tightly bound down to the neighbouring intestines by firm adhesions. In its wall was an ulcerated opening, plugged by a mass of cretaceous matter or inspissated secretion embedded in solid fæces. Owing to this plugging of the perforation, very little fæcal matter had escaped into the cavity of the peritoneum.

An instructive discussion ensued, in which the Rev. Professor Haughton, Drs. Finny, Gordon, T. E. Little, W. G. Smith, Foot, and the President took part.

Dr. Walter Smith showed the left petrous bone, cerebellum, and lungs of a young man, aged twenty-one, who had enjoyed good health until December 23, 1881, when severe pain suddenly set in in the left ear and left side of the head. Next day there were rigors, sweatings, and vomiting. The patient was admitted to Sir P. Dun's Hospital on January 1. There was no history of any discharge from either of his ears. The temperature ran a completely atypical course. On one occasion it fell to 96.7°, on another it rose to 107.4°. There was a similar want of accordance between the pulse and respiration records. There was a complete absence of any paralytic symptoms, general or special. The sputum was rusty and streaked with blood, but physical signs of pneumonia were not discovered until January 9. The cerebral symptoms then became latent. Examination showed bulging of the left membrana tympani, but there was no perforation or otorrhœa. After increasing dyspnoea, death ensued on January 15. The spleen was large and pulpy; it weighed ten ounces and a half. There was some left pleural effusion; foci of embolic pneumonia were found in the left lung. The right lung was tough, non-crepitant, and in places quite gangrenous, with several softening embolic pneumonic patches. Necrosis of the pleura was well marked on the surface of the lung. A small greenish abscess was observed in the cerebellum, below the left corner of the pons Varolii. A thrombus lay in the left lateral and superior petrosal sinuses. The left petrous bone was diseased and very foetid. The cavity of the tympanum

was full of brown grumous stuff, and its roof was broken down and perforated.

At the meeting held on Saturday, January 28 (Dr. Stokes, President, in the chair), Dr. C. J. Nixon showed several of the viscera of a man, aged thirty-six years, who became suddenly hemiplegic on the morning of December 14, 1881. There was complete motor paralysis of the right leg and arm, and partial paralysis of the right side of the face. On examining the heart a pre-systolic thrill and murmur were detected. He had suffered from rheumatic fever a year previously. The diagnosis was embolism of the left middle cerebral artery. Notwithstanding an attack of traumatic erysipelas from blistering the vertex, the patient did well until January 23, when a febrile attack, apparently due to pneumonia, set in suddenly, and terminated fatally on the fourth day. After death, marked mitral obstruction was found, with a patch of recent ulcerative endocarditis. The chordæ tendinæ of the mitral valve were thickened, and in some cases were snapped across. The right auriculo-ventricular valves were dilated. The lungs were congested. The much-enlarged spleen contained one hæmorrhagic infarction. Peyer's patches were prominent. A plug occupied the left middle meningeal artery; but the island of Reil and the convolution of Broca were unaltered. The kidneys were fatty.

Dr. T. E. Little presented an example of chronic simple ulcer of the stomach and duodenum in a woman, aged between fifty and sixty years. There was no general peritonitis, but the stomach was slightly adherent at the pyloric extremity to neighbouring parts. In the posterior portion of the lesser curvature was an ulcer, the size of a shilling. Its edges were punched out and perpendicular its base was formed by the pancreas. There was hypertrophy of the submucous (oblique) muscular fibres of the stomach. Here and there cicatrised superficial ulcers of the mucous membrane existed. A second ulcer, similar to that above described, was found in the first portion of the duodenum. As regards the etiology of these curious ulcers, Dr. Little pointed out a singular coincidence in their occurrence at two places of attachment of the lesser or gastro-hepatic omentum.

FROM ABROAD.

THE LAICISATION OF THE FRENCH HOSPITALS.

THE proceedings which, under the above barbarous appellation, have been going on during 1881, have been summed up by Dr. Bourneville, the prime mover in the matter, in the report of a committee addressed to the Paris municipality (*Progrès Méd.*, January 28). According to this—

1. The names of saints have been replaced in the wards of a dozen of the hospitals by those of physicians, surgeons, *savants*, and architects, or by benefactors to the Assistance Publique. This body is urged to complete the work in the other hospitals as speedily as possible.
2. The committee urges the removal of all religious emblems from the wards, and to appropriate the chapels of those hospitals in which the priest-almoners have been dismissed, to the general purposes of the hospitals—such as places of meeting for the patients, amphitheatres, museums, etc. It especially insists upon such transformation of the chapel of the Hôtel-Dieu, the building of which has been long suspended.
3. It also recommends the Assistance to institute concerts, *fêtes*, and conferences in the hospitals. The concerts and theatrical representations tried at Bicêtre and Salpêtrière, and the “conférences” held at Bicêtre and the St. Louis, show the utility of this kind of relaxation, “which are regularly given in most of the English hospitals.”
4. A list is given of the hospitals that are “laicised,” and of others about to be so.
5. It is suggested that the Assistance, in order to hasten on this process of “laicisation,” should from time to time call public attention to the existence of the municipal schools for lay nurses, to which extern pupils are freely admitted and are practically taught, at the Salpêtrière and La Pitié. The *personnel* necessary for the hospital establishments is recruited from the intern pupils of these schools, and also from the externs when they have sufficiently shown their capacity. It is stated that many educated ladies, rendered widows while still young, having



sustained reverse of fortune, have requested to be allowed to enter the hospitals as nurses; but it is not deemed desirable that they should be so admitted unless they pass through the grades of instruction. 6. The increase of the numbers of the pupils at the lectures, and their assiduity, are a sure guarantee that "complete laicisation" may be put into efficacious operation in a short time, so that at the end of the present scolar year the Assistance will be in possession of a sufficient *personnel* for other hospitals, when congratulations will be able to be made at the progress accomplished. "The changes which have taken place at the Prefecture of the Seine," says the *Progrès*, "can but assure the realisation of reforms so well commenced. Of this we are fully convinced. The late M. Hérold has 'laicised' the schools of the city of Paris, and M. Floquet will complete the work of his predecessor by 'laicising' the hospitals." But, happily or not happily, events move too rapidly in Paris for the verification of predictions! M. Floquet is already numbered with the large band of the displaced.

STATISTICS OF OPERATIONS AT THE NECKER HOSPITAL.

In the *Gazette des Hop.* for November 19, Dr. Brochin supplies a statistical account of the results of the operations practised by M. Trélat in his service of clinical surgery at the Necker Hospital during the scolar year 1880-81. The number of operations was 112, of which number 7 of the subjects died, or 6.2 per cent., and the operations proved of no avail in 13, giving 88.3 per cent. of cures (reserve being made for relapses in cancer). These operations were distributed into the following categories:—(1) Nine amputations (4 of the thigh, 3 of the leg, 1 of the forearm, 1 of the finger; and in these there were 2 deaths, or 22.2 per cent. Among these cases, one patient in whom the leg was amputated had to undergo re-amputation of the thigh; in another thigh amputation the patient had to undergo total excision of the upper maxilla; and in another there was dislocation of the hip on the same side. The patient who underwent amputation of the forearm was eighty-six years of age. All these patients recovered. (2) Eight excisions with 1 death, or 12.2 per cent., the cases being excision of the jaws, of the ends of stumps, and osteotomies for deep sequestra; (3) 17 tumours, with 3 deaths, or 17 per cent.; (4) 8 cases of cold abscess, all recovering; (5) 2 cases of ablation of cancerous rectum, and 1 of lumbar colotomy, all recovering, but two relapsing after from six to eight months; (6) 10 autoplasties, without any deaths; (7) 10 operations on the eye, all recovering; (8) 4 ingrowing nail, 3 fistula, 25 hydroceles, hæmatoceles, effusions, or cysts, 8 dislocations, and 7 operations not specified.

Dr. Brochin deems it a matter of interest to compare these figures with the statistics of the Paris hospitals about twenty years since, and for this purpose he takes the figures supplied by the *Statistique Médicale des Hôpitaux de Paris* for the years 1861, 1862, and 1863. In the year 1861 there were performed in the hospitals 42 amputations of the thigh, with 7 recoveries and 37 deaths, or a mortality of 83.33 per cent.; of amputations of the leg, on the whole, the mortality was 58.74 per cent., and that at the place of election as high as 92.86 per cent.; of amputations of the arm in general the mortality was 36.94 per cent. In 1862 there were 40 amputations of the thigh, with 19 recoveries and 21 deaths, or 52.50 per cent.; 45 amputations of the leg, with 17 recoveries and 28 deaths, or 63.89 per cent.; and 64 of the arm, forearm, and fingers, with 53 recoveries and 11 deaths, or 23.19 per cent. In 1863 there were 40 amputations of the thigh, with 15 recoveries and 25 deaths, or 58.33 per cent.; of 36 amputations of the leg, 15 recovered and 21 proved fatal, or 62.50 per cent.; of 62 amputations of the arm, forearm, and fingers, 48 were followed by recovery and 14 by death, or 26.62 per cent. Assembling the amputations all together, it is found that the mortality was 59.67 per cent. in 1861, 46.52 in 1862, and 49.82 in 1863,—being a mean for the three years of 52.03 per cent. But the mean of the mortality of the operations of the same order at the Necker in 1880-81 was, as has been seen, only 22.2 per cent. It is especially due to the improved methods and procedures in present use, and to the regimen and consecutive cares, now better understood and more perseveringly pursued, that this great improvement must be attributed; and such results are themselves the most eloquent testimony to the progress now realised by surgery.

REVIEWS.

Rheumatism: its Nature, its Pathology, and its Successful Treatment. By T. J. MACLAGAN, M.D. London: Pickering and Co. Pp. 333.

[SECOND NOTICE.]

WE have already seen that Dr. MacLagan ties himself down to a malarial theory of rheumatic fever. But hypothesis begets hypothesis, and we speedily find that the malarial germ by itself is non-operative. We have, moreover, to account somehow for what is commonly called an inflammatory lesion—a thing such as is not usually recognised as a result of malaria. Nevertheless, the way in which our author reasons as to the origin of the inflammation is both characteristic and ingenious. He has to invent what he calls a "nidus,"—but surely a nest with such peculiar functions as this possesses was never heard of. At all events, he tells us that "the seat of the rheumatic inflammation is the nidus of the parasitic organism which produces the disease." Now, he argues, fecundation—for with fecundating powers this so-called nidus is gifted—implies a great expenditure of force, and this force is manifested in some plants (the Araceæ, for example) as heat. Even as regards germs, their fecundation by a nidus must imply "increased activity in and increased vascularity of the part in which the action occurs," and such hyperaction as the fecundation of thousands of germs accounts for everything in the shape of pain and inflammation. In rheumatism, moreover, the fecundating nidus is to be found in the fibrous tissues of the motor and vascular apparatus, and "the inflammation of these tissues is the necessary accompaniment of the hyperaction which the fecundation of an organism in them implies." No one can help feeling that this is very satisfactory; it almost gives rise to a sensation such as that produced by the "blessed word Mesopotamia."

One word, however, as to the kind of inflammation found in connexion with rheumatic joints. We shall say nothing of the internal manifestations of inflammation in rheumatic joints, save to ask our readers to bear in mind how speedily a rheumatic joint may resume its normal appearance and functions. We shall only refer to those well-known symptoms handed down to us by the fathers of medicine—the *tumor, rubor, dolor, calorque*. Out of these Dr. MacLagan enumerates only three—the pain, swelling, and redness; yet we think we have found the affected joint hotter than the neighbouring parts. But even of the three we are told that one only is essential, namely, *pain*. Where, then, have gone all the other results which we are taught to believe originate in the fecundation of these horrid germs by the wonderful nidus—the hyperaction, the hyperæmia, and so forth? Can we admit of an inflammation whose only symptom is pain, unaccompanied by any other local or general indication, such especially as fever; for in rheumatism pain and fever may be totally disconnected? Nevertheless, of this rheumatism, according to the theory, the germs must be there, and the nidus must be there, and the fecundation going on, and the hyperaction manifesting itself, otherwise there would be no rheumatic condition!

But this imaginary nidus fulfils other useful functions. Thus by its means is explained how the pain and other symptoms wax and wane in different joints. Given, for instance, a quantity of germs introduced into the body, they have no power until they reach the fecundating nest; then the local symptoms may become fierce and strong if there is plenty of nidus, but by-and-by the nidus exhausts itself, and the pains, etc., abate. Nevertheless, as the nidus regenerates, the joint may again be attacked, and suffer as badly as ever. Have we not here a beautiful explanation of why some joints are attacked rather than others (they have plenty of nidus); why there should be apparently leaps and bounds from one joint to another (when the nidus of one is gone there may be some elsewhere), relapses, and so forth—for is it not postulated that this nidus may grow again *ad infinitum*? Unfortunately, no sort of periodicity can be traced to this growth, otherwise it would be useless to invent a malarial germ, and even such odds-and-ends as strain, etc., might be dismissed were they not useful in other connexions.

What a pity that all this is hypothesis; that there is not a single atom of foundation for it beyond the lively fancy of

Dr. Maclagan! It may be all very true; even this curious fecundating nest, or "second factor," as the author somewhat pedantically calls it, may have an existence: meanwhile it is but a thing of the imagination. At all events, the idea of a fecundating nest is a brilliant one, and, if properly carried out, might have many useful domestic applications.

Let us see next what Dr. Maclagan has to say of rheumatism as it affects the heart, and producing, according to his classification, endocarditis, pericarditis, and myocarditis. Here we had hoped for some rest for the sole of our foot whilst wading through this morass of hypothesis, and that we might at last touch solid ground. We have some respite, it is true, but still we do not escape scot-free. As regards hypothesis, false fact and false inference, they are still freely to be found, but perhaps less abundantly than in some other portions of the volume.

With regard to endocarditis, Dr. Maclagan accounts for the rarity of its occurrence on the right side by his theory of strain. We are not in a position to deny this point-blank, for the real reason we do not know; but it may be well to bear in mind that right endocarditis is by many esteemed to be not uncommon during uterine life, as witnessed by what seem its results. As regards the theory of strain, too, it must not be forgotten that the textures of the right heart, if weaker than those on the left, have less work to do, and *vice versa*—so that what would be strain on the right might be no strain on the left side. But we may go farther, and say that the strain on the right is sometimes very great—so great that we have dilatation without valvular disease; a thing we scarcely ever see on the left side. It is evident that absence of strain alone will not help us to an explanation of why right endocarditis is so rare.

When, again, the author tells us that "endocardial inflammation is limited to the fibrous rings and valves" of the left side, he gives us a specimen of his false facts. We all know that these structures are by far the most frequently affected; but elsewhere, over the inside of the ventricle, we often find patches of inflammation; and the chordæ tendineæ, with their attachments, are specially liable to implication.

Dealing with the valvular affections of the left side, a new factor is introduced. What in point of number this one is, we can scarcely tell, but that is of the less moment since it is commonly admitted to be of importance. This new factor is friction, which, according to the author, has no existence until the valve becomes affected by inflammation. "It cannot be," he says, "that the valves constantly and naturally rub against each other, for, in that case, if friction produced endocarditis, no one would be free from it." By the way, we never heard it suggested that ordinary healthy friction by itself produced endocarditis. "Furthermore," he says, "contact does not imply friction." That may be so, but repeated and intermittent contact does; and the figures which are used to illustrate his argument show as clearly as may be that if friction has anything to do with the generation of inflammatory granulations, the points where these originate are so far from the valve-edges that, in the ordinary course of things, both contact by surfaces and friction must constantly go on. But it is hardly worth while discussing such details—slight, in comparison with other facts contained in the volume.

Fortunately, the chapter on pericarditis is short, and consequently there is less room for error in it; nevertheless, it contains some doubtful statements, which, however, we may fairly pass by. We would only note that, with regard to causation, the author invokes a mode of origin which, singularly applicable elsewhere, is here scarcely admissible, for he attributes rheumatic inflammation of the pericardium "not to the direct action of the rheumatic poison on that membrane, but to the extension to it of an inflammatory process originating in the subjacent fibrous textures." The textures thus alluded to are those which constitute the auriculo-ventricular septum, with the valves on one side, and the pericardium on the other. Well, this mode of origin may be right, or it may be wrong. The only difficulty which it involves is, that every pericarditis must be preceded by an endocarditis,—which, after all, is nothing, if once one is accustomed to get over difficulties by hypothesis.

More space is devoted to myocarditis, which, if not more common, is at least, according to the author, much more easily made out than most men believe. His views, too, on

this subject are peculiar. For certain purposes he has already laid down the dogma that the lining membrane of the heart is non-vascular, and therefore incapable of inflammation. Hence, whenever marks of inflammation are found in the muscle beneath an old endocarditic patch, the order of things must have been myocarditis first, and endocarditis afterwards; though how this could take place "if the endocardium cannot itself be the seat of inflammation," we are not told. At all events, the author is quite clear that myocarditis may exist and may originate independently of either endocarditis or pericarditis. Most commonly, however, the mischief is associated with affections of the fibrous structures about the base of the ventricles, and takes the form of indurated patches. This has an important bearing on the diagnosis of myocarditis: according to the author, it is with the apex-sounds that the diagnosis rests. The sounds in myocarditis are, the author says, *muffled* at the apex, and there can be little doubt but that this is due to the "thickened condition of the ventricular walls." Here the author may be right again, as doubtless he is sometimes, but an awkward little difficulty occurs to us. We are told that the thickening is most frequent about the base of the heart, and it is evident that only the apex-thickening can muffle the apex-sounds. Consequently, we must, after all, miss the greater part of the cases of myocarditis if we rely only on this muffling business. Again, we are told that when heard in the course of rheumatism we may be sure of the muffling arising from inflammatory thickening. Nevertheless, we should not like to trust to it alone in endeavouring to distinguish myocarditis from some degree of pericardial effusion.

Chapter XV. is devoted to the treatment of what we commonly call rheumatism, but which the author limits as *locomotor rheumatism*—probably for the reason that heart-lesions he sometimes speaks of as *vasculo-motor rheumatism*, sometimes as "complications of acute rheumatism" merely. And whilst he vaunts salicyl as a specific for the general affection, he says that it would be unreasonable to expect the salicyl compounds to put a stop to such heart-complications. We confess we do not see why.

But all the brilliant imaginings we have thus far come across in this volume seem to hide their head before Dr. Maclagan's own account of how he was led to try salicin in rheumatic fever. We fear we should be scarcely credited were we to give the story in our own words,—our readers would think we were perpetrating some ponderous joke,—we shall therefore let the author tell his own tale:—

"In connexion with the action of quinine on the various forms of intermittent and remittent fever, and in connexion with the action of the Cinchonaceæ generally on the diseases of tropical climates (ipecacuanha in dysentery, for instance) one fact had always strongly impressed me—that the malady on whose course they exercise the most beneficial action are most prevalent in those countries in which the Cinchonaceæ grow most readily—nature seeming to produce the remedy under climatic conditions similar to those which give rise to the disease.

"Impressed with this fact, and believing in the miasmatic origin of rheumatism, it seemed to me that a remedy for that disease was most hopefully to be looked for among those plants and trees whose favourite habitat presented conditions analogous to those under which the rheumatic miasm seemed most to prevail.

"A low-lying damp locality, and a cold rather than warm climate, are the conditions under which rheumatism is most likely to arise.

"On reflection, it seemed to me that the plants whose haunts best corresponded to this description, were those belonging to the natural order Salicaceæ—the various forms of willow. Among the Salicaceæ, therefore, I determined to search for a remedy for rheumatism.

"The bark of many species of willow contains a bitter principle called salicin. This principle was exactly what I wanted. To it, therefore, I determined to have recourse."

We are well-nigh tempted to exclaim, What in the name of common sense does all this mean? Had it occurred in Burnand's account of his wonderful island, we could have understood it; but the author is evidently in earnest, for elsewhere (page 241) he calls this "a logical inference." If this be logic it must belong to the horse-chesnut and the chesnut-horse variety. Only contemplate the major premiss for a moment—the *fact*, as Dr. Maclagan calls it, of the natural co-existence of malaria and cinchona trees! Think

of the groves that should flourish in the Roman Campagna, and do not; and of the widespreading growth of the healing bark in the dreaded Terai and the jungles of Bengal, where it cannot exist; and of the forests which should be found all through Central Africa and among the mangrove swamps on the coasts, where cinchona is only known in the shape of quinine! Contrast all this with the scanty growth among the South American Cordilleras, where alone the cinchonas are indigenous, and any reasonable being will be ready to say that if this is either logic or sense, it is logic or common sense run mad.

But we have made up our mind to stop here. Many passages we had marked—much startling assertion made to do duty for fact; facts twisted out of all recognition, so as to back up some wilder hypothesis than usual, so as to need, even in the eyes of the author, some little shadow of support,—but we shall leave them alone. The book rests on, and is mainly made up of, hypothesis and theory. Where facts have failed, a fervid imagination has supplied the want of them. Dr. MacLagan had in truth a great opportunity before him, but he has done worse than throw it away—he has abused it.

STATISTICAL TABLES OF ST. BARTHOLOMEW'S HOSPITAL.

—We have received a copy of the statistical tables of the patients under treatment in the wards of St. Bartholomew's Hospital during the year 1880, prepared by the Medical and Surgical Registrars. As usual, the tables have been compiled at the expense of very considerable labour and time; and we take from them the following items of information:—The average stay in hospital of all medical cases during 1880 was 31 days, of the surgical cases 29.96 days. Anæsthetics were administered 2542 times in the following proportions: chloroform, 1055 times; nitrous oxide gas alone, 99 times; ether alone, 43 times; ethidene, preceded by nitrous oxide, 41 times; and ether, preceded by nitrous oxide gas, 1304 times. In only one case were the administrations followed by a fatal result, and this was in the person of a man, aged sixty-one, suffering from strangulated inguinal hernia, who died under the influence of ether. He had been delirious during the previous night. His pulse was irregular and very febrile, and he had constant vomiting. During the operation the pulse became imperceptible, and finally respiration ceased. At the necropsy the heart's substance was found to be slightly fatty, the cavities were nearly empty, no clots. The lungs were emphysematous, and all the posterior parts were engorged with blood. A sub-table annexed to the return shows that during the year under notice the number of cases of erysipelas, pyæmia, etc., amounted to 127, resulting fatally in 22 cases.

CHARBON AND THE THEORY OF PREVENTIVE INOCULATION.—In an able review of the recent writings of Pasteur and other pathologists, Dr. Duane (*New York Journal of Medicine*, January) lays down the following positions:—"In conclusion, we may remark that the acceptance of the theory of preventive inoculation for any particular disease requires the demonstration of the following postulates:—1. The disease in question is characterised by the constant presence of a definite species of bacteria, or of their spores. 2. These bacteria, if not directly demonstrable in the blood, can be shown to exist by their subsequent development in suitable culture-fluids, to which a portion of the blood has been added. 3. These bacteria are the direct agent in the development and transmission of the disease. 4. An attack of the disease produced by inoculation of these bacteria confers complete or partial immunity against a second attack. 5. The virulent power of the bacteria may be so weakened by suitable treatment of the culture-fluids in which they are prepared that their inoculation produces only a mild form of the disease, which is still efficacious in preventing a recurrence. We think that a review of the papers which we have cited will show that these postulates have been proved for *charbon*, at least; and, further, they seem to authorise the extension of similar principles to the other infectious diseases. The whole matter is, to be sure, still under discussion, and much yet remains to be done before we can affirm with certainty the truth of the theory of absolute inoculation, or its feasibility in practice. Enough has been done, however, to show the probability of ultimate success, and to serve as a stimulus to new investigations in this promising field of therapeutics."

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

LYING-IN HOSPITAL, MYRTLE-STREET—THE "HAMILTON DONATION"—ROYAL INFIRMARY—CHILDREN'S INFIRMARY.

THE Lying-in Hospital, Myrtle-street, has hitherto been used both as a Maternity and as a Samaritan Hospital. Like all other maternity hospitals of a similar kind, it has suffered from epidemics of puerperal fever, and for this as well as for other reasons it has been decided by the governing body to conduct the institution in future only as a Samaritan Hospital. The lying-in department will be carried on in the homes of the patients by a staff of outdoor midwives and medical officers appointed to the several districts.

A windfall to the charitable institutions of this city has arrived opportunely at this season of the year, in the shape of £15,960, to be called the "Hamilton Donation." The Finance and Estates Committee have allotted this sum as follows:—Charities which participated in the Hospital Sunday Fund for the year 1881—Royal Infirmary, £2880; Royal Southern Hospital, £1536; Northern Hospital, £1344; the Dispensaries, £768; District Nursing Society, £672; Eye and Ear Infirmary, £1076; Infirmary for Children, £480; Ladies' Charity and Lying-in Hospital, £384; Homœopathic Dispensary, £192; Liverpool Convalescent Institution, £192; Stanley Hospital, £192; Hospital for Infectious Diseases, £144; Consumption Hospital, £100; St. Paul's Eye and Ear Hospital, £100; Cancer Hospital, £100; Dental Hospital, £100; St. George's Hospital for Skin Diseases, £100—total, £10,360. Charities which did not participate in the Hospital Sunday Fund—Blue Coat Hospital, £500; Boys' Orphan Asylum, £100; Girls' Orphan Asylum, £100; Infants' Orphan Asylum, £100; Deaf and Dumb Institution, £200; Home for Female Incurables, £200; Home for Aged Poor (Little Sisters), £200; Home for Decayed Mariners, £300; Liverpool Benevolent Society for Reclaiming Unfortunate Females, £150; Female Penitentiary, £150; Magdalen Asylum (Ford), £150; Magdalen Asylum (Mount Vernon), £150; The Home, Everton-terrace, £150; Midnight Mission, £150; Liverpool Central Relief and Charity Organisation Society, £200; Liverpool Shipwreck and Humane Society, £100; Nurses' Institution, £150; Newsboys' Home, £200; Preventive Home for Young Girls, £200; Seamen's Orphanage, £250; Training Home for Girls, Everton, £150; School for the Indigent Blind, £300; Roman Catholic School for the Indigent Blind, £300; Sheltering Home for Destitute Children, £200; Children's Protection Society, £200; Training-ship *Indefatigable*, £500; Workshops for Outdoor Blind, £250—total, £5600. These donations or bequests, which amount to £15,960, are subject to legacy duty at 10 per cent., and so much of such duty as cannot be paid out of the surplus of the estate not appropriated will be deducted rateably from the donations.

The annual meeting of the subscribers to the Royal Infirmary was held on January 30. The debt at the end of the year is £3315 17s. 7d.; and not only so, but its hygienic and accommodating condition is, as Mr. William Rathbone, M.P., said, "absolutely unsuitable and improper for the requirements of modern times. Better sanitary arrangements, a fuller supply of fresh air, and, above all, more space, were necessary. The fact was that the Liverpool Infirmary, in its structure and internal arrangements, was inferior to the Liverpool Workhouse, so that the citizens paid more consideration to the paupers than to the self-reliant poor."

The London and North-Western Railway Company owe the Infirmary £25,000, and it was hoped that this could be made a nucleus of the £100,000 required for the building fund.

At the close of the proceedings, Mr. Rushton Parker was re-elected Assistant-Surgeon, and Mr. McCheane, who has resigned his post as Surgeon to the Lock Hospital, was elected Consulting Surgeon to that institution. Mr. F. Lowndes, M.R.C.S., in consequence becomes Senior Surgeon, and Mr. Armand Bernard, M.A., M.B. Trin. Coll. Dub., has been elected Surgeon.

The annual meeting of the subscribers to the Children's Infirmary was held on the same date. The Committee of the Hospital have, during the year, added a new and hand-

some wing to the building, and are only in debt to a small amount. They have, however, had to sell out some of their invested funds.

GENERAL CORRESPONDENCE.

THE PRIZES FOR ESSAYS ON THE CURE OF CANCER.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you allow me a few words in explanation and partial correction of your remarks in the *Medical Times and Gazette* of December 24, concerning the offer of prizes for essays on the radical cure of cancer. According to your paragraph, Dr. Warren is the donor of the prizes, and has constituted himself, with such assistance as he may select, the judge of the merits of the essays. A re-reading of the advertisement to which you refer will show you that this is not the case. For evident reasons the donor of prizes for essays on any subject ought not to be the principal judge of their merit, if it be understood that he is at liberty to decline to award any prize, and if, in any event, the essays are to remain in his possession. As a matter of fact, as I have already stated, Dr. Warren is not the donor, but he has been selected by this personage to act in the capacity of judge of the merit of the essays, because of his acknowledged ability and integrity.

The object of retaining possession of the essays is simply to have them at hand for future reference. By the terms of the offer any writer may retain a copy of his essay, and make thereof any use he see fit.

The time allowed for the preparation of the essays was short—this, for reasons which it is not worth while to mention, was unavoidable—but it was not supposed that the offer would be responded to by writers beyond the limits of North America. The offer was really the forerunner of proposed future offers, and it was hoped that in the essays which would be presented some suggestions would be found by which such offers could in some way profit.

And this brings me to one of the chief reasons for addressing you, which is to announce that it is proposed, soon after the decision in regard to the essays to be handed in next month is made, to present a similar subject for essays to be delivered to Dr. Warren by February 1, 1883, with a considerable increase in the value of the prizes. The time allowed for the preparation of the essays will, therefore, be more than ten months; and this period, I trust, will be sufficient to induce writers on the other side of the Atlantic to contend for the amounts offered.

In conclusion, will you permit me to say, for the benefit of such of your readers as may have it in mind to write for next year's prizes, and also may not know anything of Dr. Warren, that he has been editor of the *Boston Medical and Surgical Journal*; and is now one of the surgical staff of the Massachusetts General Hospital in Boston; Instructor of Surgery in the Medical School of Harvard University; President of the Boston Society for Medical Improvement; Fellow of the American Academy of Arts and Sciences, etc.

I should be grateful for any suggestions you may kindly give concerning the best means of making any future offer of prizes known to the profession of the United Kingdom.

I enclose my card, and am, Yours, &c.,
Boston, U.S.A., Jan. 17. THE DONOR OF THE PRIZES.

P.S.—For "line of study on experimentations," in your paragraph, please read "line of study or experimentation."

ABSCCESS OF THE LIVER.—In a clinical lecture, published by Deputy Surgeon-General Dr. Furnell, on the "Diagnosis of Abscess of the Liver," after reviewing the signs and symptoms which are laid down in text-books and by authorities as indicating suppurative inflammation of the liver, he shows that in some cases many, and in some all, of these may be wanting. He believes that the thermometer furnishes the only reliable guide in diagnosis. Charts are appended to the lecture, contrasting the thermic phenomena of cases of hepatic abscess with those of ague and enteric fever. The disease which gives a tracing most resembling that of hepatic abscess is chronic phthisis, but in the latter there are physical signs and general symptoms which should remove all doubt.—*Indian Med. Gazette*, January.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 27.

JOSEPH LISTER, D.C.L., F.R.C.S., F.R.S., President,
in the Chair.

CASE OF XANTHOPSIS, OR PERVERTED COLOUR VISION.

MR. W. HENRY KESTIVEN related a case of xanthopsis, or perverted colour vision. H. L. C., a young woman, aged twenty-three; married. On July 15, an exceptionally hot day, she exposed herself to the full heat of the sun, and was seized with acute pain in the occiput, and found that she saw all things red and green. As the pain passed off, in the course of a day or two, this intense colouration diminished; ophthalmoscopic examination revealed the existence of a large patch of double-contoured nerve-fibres at the upper part of the disc of the right eye. This colour, first seen, was very prominent, and gave evidence of the existence therein of some neuritis. The left disc was normal. Examination of her colour vision showed that the left eye was normal, but that with the right eye (the one affected as described above) she saw all things yellow. This condition continued for rather more than three months, and then gradually passed away. The author suggested that the condition might be explained by the violent impression made by the rays of the sun impinging directly upon the retina. The case was seen by Dr. Buzzard and Mr. John Couper, both of whom confirmed the ophthalmoscopic appearances described.

CASE OF NEPHRO-LITHOTOMY.

MR. MARCUS BECK read a paper on a case of nephro-lithotomy. This case closely resembled in many respects that communicated to this Society by Mr. Morris, differing chiefly in the fact that the stone could not be felt after the kidney was exposed, and its presence was only recognised by puncturing the gland with a fine needle, as recommended both by Mr. Morris and Mr. Barker. The patient was a young man, aged nineteen, who had suffered for twelve years from symptoms of renal calculus. One year before he applied at University College Hospital his symptoms had suddenly increased in severity, after a profuse attack of hæmaturia. From that time he was practically unable to earn his living on account of the severe pain invariably brought on by any movement. He suffered from considerable frequency of micturition. He only passed blood recognisable to himself on three occasions. He applied to various hospitals and medical men without relief. He was admitted into University College Hospital on July 22, 1881. He was anxious to undergo any operation in the hopes of getting relief. Treatment by rest was tried for three weeks without the slightest benefit. During this time no blood was noticed in his urine, but it almost always contained a very small quantity of pus. His symptoms while in the hospital were those ordinarily observed in cases of renal calculus. Examination of the loin under chloroform showed the absence of any recognisable renal tumour. A distinct fulness, which was always clearly visible in the loin, seemed to be due to contraction of the muscles over the tender kidney, and possibly to some hypertrophy. On August 11, 1881, the operation of lithotomy was performed. The incision was slightly nearer the last rib and a little more oblique than the ordinary colotomy wound. The muscles were very thick for so feeble a subject. The kidney was exposed without difficulty in its lower half. Manipulation failed to detect the presence of a stone. The kidney was then punctured with an ordinary darning-needle held in a pair of torsion-forceps, and the presence and situation of the stone were easily recognised. Following the direction indicated by the needle, a knife was passed into the kidney with its edge directed upwards. The bleeding, which was at first very alarming, was arrested by the pressure of a sponge in less than one minute. The wound was then dilated with a pair of polypus-forceps, with which the stone could be felt, but not grasped. The finger was, therefore, inserted by the opening into the pelvis to guide the forceps, and the stone was then easily removed. The bleeding ceased at once. A large drainage-tube was inserted with its deep end in the fat about the kidney, and

the wound sutured. The whole operation was performed under the carbolic spray, and the wound was closed with carbolic gauze. The stone weighed twenty-nine grains. It was heart-shaped, and had apparently been moulded to the form of a calyx. It was composed chiefly of uric acid. The after-progress of the case was uninterruptedly favourable. The shock of the operation was not great, and lasted only for a few hours. There was considerable vomiting for the first thirty-six hours. He passed no water for twelve hours, and at the end of that time twelve ounces were drawn off by a catheter, after which he passed it naturally. No urine escaped from the wound till the seventh day. It then flowed abundantly till the eleventh day, when it ceased to pass by the wound. At the end of the third week he sat up in bed; at the fourth week he left his bed; and at the end of the fifth week he went to a convalescent home with the wound soundly healed. The temperature never rose above 101.5° Fahr., and even after the eleventh day it remained below 100° Fahr. He suffered no pain after the second day. This case presented all the conditions justifying the operation. The patient was totally incapacitated from earning his living. It might be presumed that the stone was too large to pass by the water, as it had existed in the kidney for a period of twelve years. Treatment by rest had been tried, both in University College Hospital and elsewhere, without benefit. With the exception of the few symptoms due to the stone, the patient was in good health, and he was young, and not too fat. A small quantity of pus was almost constantly present in the urine, showing considerable irritation of the pelvis. One point in the case specially worthy of notice was the sudden alteration in the symptoms that took place about a year before the operation, accompanied by profuse hæmaturia. Up to that time, jolting, such as is caused by riding in a train, caused little pain, and there was no frequency of micturition. The attacks of pain were always brought on by prolonged walking. After that time there was gradually increasing frequency of micturition; a pain was caused both by jolting and walking. It seemed probable that this change was caused by the stone passing from the calyx into the pelvis of the kidney. The form of the stone showed that it was originally moulded in a calyx, and at the operation it was found in the pelvis. A similar difference of symptoms has been observed in other cases of renal calculus—in some the pain brought on more by the movements of the muscles in the neighbourhood of the kidney than by jolting of the body, and in others equally by both. Frequency of micturition is also a very variable condition. As all the graver consequences of renal calculus arise from the presence of a stone in the pelvis, and as the chances of cure by the stone becoming encapsuled are certainly greater when the calculus is lying in a calyx, it is important, if possible, to distinguish these two conditions. Future observation might show some such rule as the following to be true:—When the pain is induced by walking only, and there is no marked frequency of micturition, the stone is probably enclosed in a calyx; when the pain is greatly intensified by jolting of the body, as well as by walking, and when there is great frequency of micturition, the stone is probably lying loosely in the pelvis. With regard to the operation itself, the chief points of interest were the success of the proceeding of puncturing the kidney with a fine needle in finding a stone which could not be detected by manipulation; the rapidity with which the bleeding from the kidney was arrested by simple pressure with a sponge; and the simplicity and ease of the whole operation, which was, in fact, no more difficult than an ordinary perineal lithotomy. It showed, however, that, in order to avoid too great loss of blood, the knife should be used as little as possible, and the wound enlarged by tearing. The rapid healing of the wound was, no doubt, in a great measure due to the thickness of the kidney substance cut through, which prevented, to a great extent, the escape of urine by the wound. The importance of the antiseptic treatment in such cases could hardly be over-rated, when we consider the depth of the wound, the amount of decomposable matter which necessarily lies in it, and the dangers of septic pyelitis and disseminated suppuration of the kidney.

CASE OF RENAL LITHOTOMY.

Mr. HENRY T. BUTLIN read a paper on a case of renal lithotomy. The patient was a young man, aged twenty, who, for ten or twelve years, had suffered from severe attacks of neuralgia of the testis. The attacks occurred very frequently,

and lasted from thirty minutes to two or three hours. After his admission into St. Bartholomew's Hospital, in September, Mr. Willett discovered that the pain was seated in the right side of the abdomen as well as in the testicle, and that the symptoms were those of renal colic rather than of neuralgia of the testis. The urine contained crystals of calcium oxalate, and occasionally a trace of albumen, but no blood or pus. In spite of the pain, the patient's health was fairly good. As treatment did not afford permanent relief, Mr. Butlin cut down on the kidney through a vertical incision in the lumbar region. The kidney appeared to be healthy, but a calculus was discovered and removed from the renal pelvis. It was composed of calcium oxalate, was about as large as a filbert, and quite prickly on the surface. The patient made a good recovery, so that two months after the operation—which was performed on October 5—he was discharged free from pain and quite well, except that a small quantity of pus was present in the urine. Lister's antiseptic dressing was at first employed, but this was abandoned two days after the operation, and the wound was treated, as far as possible, like an ordinary lithotomy wound. Urine ceased to flow through it after about the seventeenth day. This case is of interest, not merely as a contribution to the successful treatment of renal calculus, but as an important contribution to its diagnosis. The absence of blood in the urine is especially remarkable when the situation and nature of the stone are considered.

TWO CASES OF NEPHROTOMY FOR THE REMOVAL OF RENAL CALCULUS.

Dr. WHIPHAM and Mr. J. W. HAWARD contributed a paper on two cases of nephrotomy for the removal of renal calculus. *Case 1.*—A married woman, aged twenty-three, was admitted into St. George's Hospital, under Dr. Barclay, on September 10, 1880. The family history was good. The patient gave a clear history of having passed a calculus seven years previously. It was a rough stone, and gave much pain. After this she remained in fairly good health, and although she experienced no paroxysms of pain, yet she was never free from constant uneasiness in the left side. She had never been very robust. Nine weeks before she came under Dr. Barclay's care the pain in the left loin recurred with great severity. She lost much flesh, and the urine became "very thick" and offensive. She experienced pain on micturition. While under observation she complained of shooting pains in the left loin, weakness, and loss of appetite. The abdomen was flattened, and neither dulness nor swelling were detected on the right side. On the left side the muscles were firmly contracted, and therefore no tumour was found. There was great tenderness over the left hypochondriac and lumbar regions, and slightly so in the right groin. The urine contained much pus, and was alkaline. During her residence in hospital she suffered much pain in the region of the left kidney, and had occasional perspiration. Eventually the urine became acid, and the pain was much relieved, and she was discharged, somewhat improved, on October 23, 1880. On March 21, 1881, she was readmitted under Dr. Whiphham's care, when she stated that she had in the interval never been free from pain, and that for the past week it had been intense. The urine had been persistently turbid, and she had vomited on March 20. She had noticed a few clots of blood in the urine. The abdominal tenderness was so great that no satisfactory examination could be made. As no improvement took place, Mr. Haward was called in consultation, and he decided to attempt to remove the calculus by nephrotomy. The patient having been placed under the influence of ether, a tumour was distinctly felt in the left loin, and an incision was made as if for lumbar colotomy. The surface of the tumour was exposed, a bistoury thrust into it, and the finger passed into the dilated pelvis of the kidney. A firmly fixed stone was at once detected, and without much difficulty removed, together with a few small fragments. Very little blood was lost. The patient did extremely well, and on July 16 was discharged, there being still a little discharge from the sinus in the loin, and a small quantity of pus in the urine. The stone weighed forty-seven grains, and was composed of phosphate of lime. The second case was that of a woman aged fifty-six, who was admitted under Dr. Whiphham's care on October 3, 1881. She had suffered pain on micturition for several years. In 1879 both gravel and blood were present in the urine. She was not aware that she had passed a stone. In October, 1880, she had a

sharp attack of vomiting, followed by pain in the left lumbar region and hæmaturia. While under observation, she complained of an increase of this pain, and the belly was generally tender. There was great muscular resistance on the left side, and fulness and tenderness on pressure on the right side. Fluctuation was detected on October 6 in the left loin, and Mr. Haward, who saw the patient on that day, made an incision into the swelling. During the night a copious discharge of pus occurred, with great relief to the pain. No calculus could be found; the urine contained much pus. On November 3, the patient having become worse, the incision was extended, and the wound thoroughly explored. No calculus was found; but as the kidneys and tissues were so firmly matted together, no further operation was deemed advisable. The patient died next day. At the post-mortem examination it was found that the kidney lay in a cavity, whose contents were purulent; that its pelvis was dilated, and communicated with this cavity by a large irregular opening, through which one or two fingers could be passed. Two or three small fragments of stone were found in the calyces; a large branching calculus occupied the calyces of the right kidney. These two cases were brought forward as illustrating the propriety of cutting into the kidney in cases where the diagnosis of renal calculus is clearly established, and as affording encouragement to the surgeon to perform the operation of nephrotomy in the earlier stages of the disease, rather than to postpone surgical interference until dilatation or suppuration of the organ had occurred.

Mr. CLEMENT LUCAS related a case in which he cut down upon the kidney, but failed to find a stone. The patient was a man, aged forty-nine, who, two years before, had suffered from acute pain and hæmaturia. These symptoms passed away, and he remained free from them for six or nine months, when he was again attacked with profuse hæmaturia, and became very anæmic. He passed triangular clots, presumably casts of the renal pelvis. After a month's observation Mr. Lucas performed the exploratory operation under antiseptics. He regretted that he did not also explore the organ by acupuncture, but at that time thought this was a more dangerous procedure than it had been shown to be. Eleven days after the operation the patient was sitting up, and on the seventeenth day he left the hospital with the wound soundly healed. Great relief was obtained. He had since returned with evidence of phthisis, so that it was possible he had strumous disease of the kidney. Mr. Lucas remarked on the simplicity of such exploratory measures, which he would recommend in any doubtful case.

Mr. BARKER said that the danger of hæmorrhage from the renal incision was not great. He referred to Prof. Brandt's case of "hernia of the kidney," following a wound in the loin, the organ being removed on the fourth day after injury. Mr. Barker had related this case in his paper in the *Medico-Chirurgical Transactions* (vol. lxi.). In one case, he was struck with the rapidity with which the bleeding ceased after incision of the organ; and that was also shown in Mr. Beck's case, where very moderate pressure sufficed to arrest the bleeding. Such facts proved that incision or puncture need not be feared.

Mr. MORRANT BAKER pointed out the importance of recognising a totally different class of cases from those just recorded—such cases as the one he related in a paper at the Congress, where there was a renal abscess; on exploration, there was found a large branched phosphatic calculus, which was only dislodged with much difficulty and considerable hæmorrhage. The calculus weighed nearly two ounces. The patient never rallied, and died three days after the operation. This kind of case was distinct from cases where only small stones occurred; and it was a question whether, in such a case, it would not be better to remove the whole kidney.

Mr. BARWELL had not removed a stone from the kidney, but had removed the whole kidney. He thought it desirable not to let cases in which the presence of a stone was suspected go on, with prospect of ultimate damage to the organ, when a simple incision and puncture would indicate the nature of the mischief. The incision, too, was made in a part free from danger. Hardly any pyrexia followed. It would be interesting to learn whether a stone would again form, or the kidney become mobile.

Dr. BARLOW said that Mr. Morris had laid great stress on the difference between cases in which the kidney was healthy

and those where pyelitis and destructive changes existed. This point required to be insisted on, for cases such as that described by Mr. Baker belonged to the second class. About three years ago he (Dr. Barlow) had under his care a Jewess, about forty-seven years old, passing pus in the urine, and who had had pain and swelling in the right loin for eight months. Mr. Couper was consulted, and a grating sensation was felt in the swelling. An incision was made, and pus escaped from the kidney, which contained three large calculi. The organ could not be removed; and death took place next day. It was manifestly unfair to nephro-lithotomy to contrast it with such cases as these.

Dr. LONGHURST pointed out that the successful cases appeared to be those operated on in early life; the fatal ones in older subjects. He knew of a nobleman, the subject of renal calculus, who was advised by a surgeon in Paris to submit to this operation, but he would not accede, and a year later, after a similar attack to that which he had undergone formerly, died. Both kidneys were found blocked by enormous calculi. In another case, a patient who had symptoms for eighteen months passed one or two small stones per urethram. Hence discretion should be exercised in the selection of cases for operation.

The PRESIDENT said the Society and the authors were to be congratulated on this important series of cases. They were of interest pathologically, for they dealt with calculi of different composition—oxalic, uratic, and phosphatic; and as illustrating the long time that calculi might remain in a kidney without increasing in size, so different from the case of vesical calculi. It seemed as if there were greater concentration of urine in the bladder than in the kidney. The question of diagnosis was also very interesting; almost the sole symptom in Mr. Butlin's case was the neuralgia in the testicle, hæmaturia being absent. It reminded him of one of John Hunter's cases of stone in the bladder. As to the operation itself, the incision in the loin was devoid of danger, especially if antiseptics were used. He thought an acupuncture-needle more convenient to explore the kidney than the needle used by Mr. Beck, who, however, was not only able to detect the presence of the stone, but also to estimate its size. By such a method the surgeon might decide whether the stone were too large to be extracted from the organ, which would then have to be removed entire. The free hæmorrhage, and its rapid arrest in Mr. Beck's case, reminded him (Mr. Lister) of the hæmorrhage that ensued on incision of the liver in a case of hepatic abscess seen with Sir Joseph Fayrer. Sir Joseph remarked that such free bleeding often occurred, and was of no consequence. In the renal operation, it seemed better to incise the renal substance than the pelvis of the organ.

Mr. HAWARD, in reply, said that he was glad to have heard the opinions in favour of early operation, and agreed with Mr. Barker that in advanced cases removal of the whole organ was preferable to attempted extraction of the calculus. Removal of the kidney in these cases was not always a simple matter, and sometimes impossible—e.g., in the second case related by Dr. Whipple and himself.

UNIVERSITY OF BOMBAY.—At a recent meeting of the Fellows of the University of Bombay, Deputy Surgeon-General Moore, Honorary Surgeon to the Viceroy of India, was elected Dean of the Faculty for the present year.

VITAL STATISTICS OF MADRAS IN 1880.—The report of the Sanitary Commissioner for Madras for 1880 shows that the rainfall was abundant, and the price of food moderate. The birth-rate was 22.9 per 1000, against 16.3 in 1877, 11.9 in 1878, and 16.4 in 1879. This may, he says, be taken as a satisfactory indication that the depressing effects of the famine on the fecundity of the people of Southern India are passing away, if they have not already passed away. The death-rate was 15.7 per 1000, against 53.2 in 1877, 27.8 in 1878, and 18.9 in 1879. Both cholera and small-pox were less prevalent in 1880 than for many years past. In twenty-one districts of the Presidency no deaths from cholera were registered—the total deaths from this cause in 1880 being 613. There were 14,529 deaths from small-pox registered. Fever, as usual, constituted the largest factor of mortality, contributing 209,940 out of a total of 434,101 deaths.—*Indian Med. Gaz.*, January.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members on January 26:—
Bevor, Charles Edward, M.D. London, 129, Harley-street, W
Bradshaw, Alexander Frederick, Devonport.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 26:—

Gilbert, James William Thornton, Linden-gardens, Chiswick.
Larmuth, Leopold, Cheadle.
Shillito, William Alsop, Broomhall, Sheffield.

The following gentlemen also on the same day passed their Primary Professional Examination:—
Sutton, John Bland, Middlesex Hospital.
Tomalin, William Jus. Clarkson, Guy's Hospital.
Wholey, Thomas, London Hospital.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Staff-Surgeon Ippham Hanbury to be Fleet-Surgeon in Her Majesty's Fleet, with seniority of January 15.

BIRTHS.

BENTHALL.—On January 31, at Amyand House, Twickenham, the wife of Albert Benthall, M.R.C.P., of a daughter.
BOTHAMLEY.—On January 24, at 23, Cadogan-terrace, Victoria Park, E., the wife of W. P. Bothamley, M.R.C.S., L.S.A., of a daughter.
FINNY.—On January 27, at 19, Lower Baggot-street, Dublin, the wife of J. Magee Finny, M.D., of a daughter.
FRASER.—On January 29, at 37, Melville-street, Edinburgh, the wife of Dr. Thomas R. Fraser, F.R.S., Professor of Materia Medica in the University of Edinburgh, of a daughter.
HUME.—On January 23, at 12, Sutton-place, Hackney, the wife of Walter Augustus Hume, M.R.C.S., L.S.A., of a son.
NORBURY.—On January 8, at Simon's Town, Cape of Good Hope, the wife of Fleet-Surgeon Henry F. Norbury, C.B., R.N., of a son.
THOMPSON.—On January 25, at the City and County Lunatic Asylum, Stapleton, Bristol, the wife of George Thompson, Esq., Medical Superintendent, of a son.
WALFORD.—On January 23, at Newton House, Newton, Lanarkshire, the wife of Charles Cochrane Mowbray, Esq., of a daughter.
WRIGHT.—On January 28, the wife of Francis James Wright, M.D., of Northumberland House, Finsbury Park, of a daughter.

MARRIAGES.

CLARK—IRELAND.—On January 23, at Edinburgh, Henry Martyn Clark, M.B., C.M. Edin., Medical Missionary to the Punjab, to Mary Emma, daughter of the late Capt. W. F. Ireland, 25th N.I. Bengal Army.
COODE—MONRO.—On January 24, at Bonchurch, the Rev. Athelstan Coode, second son of Edward Coode, Esq., of Polapit, Tamar, Cornwall, to Clara Eleanor, daughter of Henry Monro, M.D., of Upper Wimpole-street, London, and Orchard Leigh, Bonchurch.
FRANKLYN—HALL.—On January 28, at Millbrook, Edward James Franklyn, M.D., Deputy Surgeon-General Army Medical Department, to Matilda Elizabeth Helena, second daughter of the late Colonel Thomas Hall, D.L., of Killeen, Argyllshire, and formerly of the Grenadier Guards.
GROOM—TAYLOR.—On January 31, at Wisbeach, Cambridge, William Groom, B.A., M.R.C.S., eldest son of Alderman Groom, J.P., M.R.C.S., L.S.A., L.M., to Caroline, youngest daughter of the late John Taylor, Esq., D.L., both of Wisbeach.
PRIDEAUX—MACLEOD.—On January 1, at Kirkee, East Indies, William Francis Prideaux, Major Bombay Staff Corps, and Lieutenant-Colonel in the Persian Gulf, to Mary Catherine, daughter of A. C. MacLeod, M.D., Surgeon-Major retired list Madras Army, of Castlefields, Shrewsbury.
STEAD—ANDERSON.—On January 25, at Bexley Heath, Geoffrey Stead, M.R.C.S., of 155, Pershore-road, Calthorpe Park, Birmingham, to Emily, elder daughter of the late William Anderson, Esq., of Brampton Lodge, Bexley Heath.

DEATHS.

CRISTISON, Sir ROBERT, Bart., M.D., D.C.L., LL.D., one of her Majesty's Physicians-in-Ordinary in Scotland, at 40, Moray-place, Edinburgh, on January 27, in his 85th year.
COLLIER, JOHN, M.R.C.S., at Brackley, Northamptonshire, on January 24, in his 80th year.
CRONIN, EDWARD, M.D., at Claremont House, Brixton, on February 1.
DAGNALL, EDWARD, M.C.D.E., on January 21, at Westeria House, Battersea, in his 63rd year.
DAVISON, H.A., M.B., at the Firs, Hounslow, on January 26, aged 26.
NICHOLL, DAVID CHARLES, F.R.C.P., at Wisbeach, on January 18, aged 35.
OWEN, THOMAS EDWARD, M.R.C.S., etc., at Plymouth, on January 26, aged 45.
PUDDICOMBE, SYDNEY MORGAN, late Commander ss. *Lido*, son of J. M. Puddicombe, F.R.C.S., of Dartmouth, on board O.S.S. *Jason* (homeward bound from China), on January 26, aged 30.

VACANCIES.

BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Assistant Medical Officer and Dispenser. Candidates must be duly qualified. Applications, stating age, whether married or single (and photo, if possible), together with recent testimonials, to be forwarded to D. J. Sloane, Secretary, 80, Arcadia-street, Manningham, Bradford, Yorkshire, on or before February 9.

BODMIN UNION, CORNWALL.—Medical Officer. (For particulars see Advertisement.)

CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Candidates must be registered to practise in medicine and surgery, and acquainted with the Welsh language. Applications, with testimonials, to be sent to the Secretary, on or before February 11.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S-INN-ROAD, W.C.—Assistant-Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and must produce certificates of having attended the practice of some ophthalmic institution for at least six months. Testimonials to be sent to the Secretary, on or before February 4.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, PENDLEBURY, AND GARTSIDE-STREET, MANCHESTER.—Physician. (For particulars see Advertisement.)

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, MARGARET-STREET, CAVENDISH-SQUARE.—Two Visiting-Physicians. (For particulars see Advertisement.)

PARISH OF FOVERAN AND DISTRICT.—Medical Practitioner. (For particulars see Advertisement.)

RADCLIFFE INFIRMARY, OXFORD.—Junior Resident Medical Officer. (For particulars see Advertisement.)

ROTHERHAM HOSPITAL.—Resident House-Surgeon. Candidates must be members of the Royal College of Surgeons of England, and Licentiates of the Society of Apothecaries, or of the Royal College of Physicians of London. Registered and unmarried. Preference will be given to those candidates who have held the office of House-Surgeon or Assistant House-Surgeon in a large hospital or infirmary for at least twelve months. Applications, with testimonials as to professional ability and moral character, to be sent to John Barras, Hon. Secretary, on or before February 23.

ST. BARTHOLOMEW'S HOSPITAL.—Surgeon and Assistant-Surgeon. Applications, together with testimonials, must be forwarded to Wm. Henry Cross, Clerk, on or before February 14. Candidates are requested to attend on February 16, at eleven o'clock precisely, when a Committee of Governors will meet to receive their applications and testimonials, also on March 2, at twelve o'clock, when the election takes place.

ST. BARTHOLOMEW'S HOSPITAL, CHATHAM.—Resident Assistant House-Surgeon. Candidates must be registered medical practitioners. Applications, stating age, with testimonials, to be sent (under cover) to the Clerk to the Trustees, addressed to the Trustees of St. Bartholomew's Hospital, endorsed "Application for Assistant House-Surgeon," on or before February 13. All particulars can be obtained of Messrs. Hayward and Smith, Solicitors, Rochester.

THE BRITISH LYING-IN HOSPITAL, ENDELL-STREET, W.C.—Honorary Physician. Candidates must be Fellows or Members of the College of Physicians, or have a degree in medicine of one of the Universities of the United Kingdom. Applications, with testimonials, etc., should be sent to the Chairman of the Board of Management, on or before February 13.

NATIONAL HEALTH SOCIETY.—A lecture by Frederick Treves, Esq., F.R.C.S. (London Hospital), on "The Dress of the Period," will be delivered at the Town Hall, High-street, Kensington, on Saturday afternoon, February 25, at four o'clock; Dr. Andrew Clark in the chair. The following is a brief syllabus:—The "dictates" of fashion. Tight lacing as a matter of beauty, of sense, and of health. Are stays a necessity? Tight dresses. The evils of certain modes of dressing. Superfluous clothing. The human foot and the modern shoe. High heels, and their effect upon the muscles and the gait of the wearer. Fashions of dressing hair, etc. Tickets for the lecture may be obtained at W. Rogers, stationer, nearly opposite the Hall, or at the offices of the Society, 44, Berners-street, W., on Mondays and Fridays, from two to five, or will be forwarded by post on application.

PROFESSOR PARKER'S LECTURES.—The following is the programme of Professor W. K. Parker's lectures "On the Morphology of the Mammalian Skull," to be delivered in the Theatre of the Royal College of Surgeons, at four o'clock on each of the days specified:—Lecture I. (February 6).—Introductory: on the vertebrata as a group, and on the vertebrate embryo. Lecture II. (February 8).—On the development of the endo-skeleton, and a comparison of its cranial and spinal regions. Lecture III. (February 10).—On the superficial cartilaginous skeleton—labial, oral, and pharyngeal; on the limbs; and on the dermal (bony) skeleton. Lecture IV. (February 13).—The endo-cranium proper in its gradation and development throughout the vertebrate series. Lecture V. (February 15).—The histological changes undergone by the endo-cranium:—*a*, the membrano-cranium; *b*, the chondro-cranium; *c*, the chondro-stro-cranium; *d*, the osteo-cranium. Lecture VI. (February 17).—The sense-capsules of the vertebrata. Lecture VII. (February 20).—The visceral arches and cranial nerves in the "branchiata." Lecture VIII. (February 22).—The visceral arches in the abbranchiata; their abortive development and modification in relation to the sense-capsules, especially in the mammalia. Lecture IX. (February 24).—Recapitulation, and conclusion.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 28, 1882.

BIRTHS.

Births of Boys, 1341; Girls, 1324; Total, 2665.
Corrected weekly average in the 10 years 1872-81, 2779.5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	956	1015	1971
Weekly average of the ten years 1872-81, } corrected to increased population ...	928.4	924.9	1853.3
Deaths of people aged 80 and upwards ...	...	...	83

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West	668993	11	5	1	37	...	5	1	5	5
North	905677	4	7	3	9	22	3	...	...	...
Central	231793	1	2	...	9	...	2	...	...	3
East	692530	1	2	7	1	50	...	...	...	3
South	1265578	19	18	11	3	57	1	5	...	7
Total	3814571	24	39	23	14	175	1	17	1	23

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	30.368 in.
Mean temperature ... ..	...	...	...	...	...	33.8°
Highest point of thermometer ... ..	...	...	...	...	...	50.5°
Lowest point of thermometer ... ..	...	...	...	...	...	25.4°
Mean dew-point temperature ... ..	...	...	...	...	...	34.2°
General direction of wind ... ..	...	...	...	...	...	S.W.
Whole amount of rain in the week ... ..	...	...	...	...	...	0.00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the
Week ending Saturday, Jan. 28, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Jan. 28.	Deaths Registered during the week ending Jan. 28.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London	3891078	2665	1971	26.4	59.5	25.4	36.8	2.67	0.00	0.00
Brighton	109573	83	53	25.2	48.8	29.0	37.6	3.12	0.06	0.00
Portsmouth	129875	80	50	20.1	...	...	...	...	...	...
Norwich	83821	54	38	22.3	...	...	...	...	...	...
Plymouth	74449	54	38	23.6	52.8	29.0	41.1	5.06	0.04	0.10
Bristol	210134	148	89	22.1	53.2	28.2	39.3	4.06	0.01	0.03
Wolverhampton	76756	49	31	21.1	46.8	27.9	37.0	2.78	0.70	1.78
Birmingham	403532	282	180	23.0	...	...	...	...	...	...
Leicester	126275	119	49	20.2	49.2	30.8	39.5	4.17	0.51	1.30
Nottingham	193573	143	95	25.6	48.8	29.1	38.3	3.50	0.03	0.08
Derby	83587	69	28	17.5	...	...	...	...	...	...
Birkenhead	86582	63	48	28.9	...	...	...	...	...	...
Liverpool	560283	406	308	28.7	...	...	...	...	...	...
Bolton	106767	80	51	24.9	...	...	...	...	...	...
Manchester	340316	253	157	24.1	...	...	...	...	...	...
Salford	184901	157	90	25.5	...	...	...	...	...	...
Oldham	116572	62	58	26.2	...	...	...	...	...	...
Blackburn	106460	83	48	23.5	...	...	...	...	...	...
Preston	97656	82	43	23.0	...	...	...	...	...	...
Huddersfield	83418	57	42	26.3	...	...	...	...	...	...
Halifax	74713	41	31	21.6	...	...	...	...	...	...
Bradford	183101	116	72	20.0	...	...	...	...	...	...
Leeds	315998	188	112	18.5	51.0	34.0	40.7	4.83	0.00	0.00
Sheffield	290516	213	112	20.1	51.0	31.0	40.1	4.50	0.00	0.00
Hull	158357	104	59	19.4	...	...	...	...	...	...
Sunderland	119035	96	62	27.2	54.0	32.0	42.6	5.90	0.05	0.13
Newcastle	147626	103	64	22.6	...	...	...	...	...	...
Glasgow	83724	67	39	23.5	...	...	...	...	...	...
For 28 towns	8455308	5217	4018	24.8	54.0	25.4	39.3	4.06	0.13	0.33
Edinburgh	232440	140	88	19.8	50.7	29.1	42.6	5.90	0.19	0.48
Dublin	514048	398	219	22.2	50.5	37.0	44.3	6.84	0.50	1.27
Glasgow	348293	192	241	36.1	52.4	35.8	43.9	6.61	0.26	0.66

At the Royal Observatory, Greenwich, the mean reading
of the barometer last week was 30.37 in. The highest reading
30.57 in. on Wednesday morning, and the lowest 30.19 in. by
the end of the week.

NOTES, QUERIES, AND REPLIES:

Be that questioneth much shall learn much.—Bacon.

POISONING BY MISTAKE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR.—The recent disaster at Guy's Hospital would probably have been
avoided if the morphia had been put up in red paper. This colour can
always be recognised, even by artificial light, and might be used for
wrapping up all kinds of poisonous powders, both in shops and in hospi-
tals. The paper should, of course, be red on both sides.

January 28.

I am, &c.,

J. D.

A CORRECTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you be kind enough to state in the next number of the
Medical Times and Gazette that the erroneous announcement in the *Medical
Times and Gazette* of January 28, of a meeting of the Pathological Society
on January 31 was not communicated by either of the Hon. Secretaries
or by any other official of the Society.

We are, &c.,

J. F. PAYNE, } Hon. Secretaries,
HENRY MORRIS, } Pathological Society.

Pathological Society of London, January 31.

Erratum.—At page 90 of the *Medical Times and Gazette* of January 28, in
last line of Dr. Mickle's paper, for "bones" read "lobes."

A Competitor.—It is stated that as many as five essays have been sent in to
the College of Surgeons for the Jacksonian Prize, on the Pathology and
Surgical Treatment of the Hip-joint.

A Member.—The lectures in the Theatre of the College of Surgeons will
be commenced on Monday next by Professor Parker, F.R.S., who will
deliver nine lectures on the Morphology of the Mammalian Skull.

A Teacher, Liverpool.—The Board of Examiners consists of nine members,
representing the following metropolitan hospitals:—St. Bartholomew's,
Messrs. Power (the Chairman), Baker, and Langton; London, Messrs.
Rivington and McCarthy; St. George's, Mr. Pick; the Middlesex, Mr.
Lowne; the Charing-cross, Mr. Bellamy; and King's College, Mr. Yeo.

Egyptologist.—"The Egypt of the Past," by Sir Erasmus Wilson, an
interesting and instructive work, will well afford you the desired informa-
tion. Before visiting the Nile you could not do better than provide
yourself with a copy.

K., St. John's Wood.—The common notion on the Continent was, that the
publication of weekly mortality tables, such as those of London, might
shake the nerves of the people and lead to demonstrations of terror in
times of epidemic. But experience proves that the public notification
of the facts quiets, instead of disturbs, the popular mind, and divests
it of alarm, because it reveals the exact extent of danger of such
visitations.

Anti-Vaccination: a "Noble" Advocate.—At the Brighton Police-court,
Lord Clifton represented a working-man named Lilley, who had been
served with a vaccination summons, and urged that the defendant could
not conscientiously submit his child to vaccination. His Lordship was
present under the clause of the Act which allows the parent to appear
by "himself or any other person," Lilley not being able to bear the ex-
pense of a solicitor. This was the first time Lilley had been summoned at
this court, but he had undergone imprisonment at Leicester for a similar
offence. The usual order was made.

An Emergency which ought to have been provided for.—In various parts of
Leeds small-pox is breaking out to a somewhat serious extent, in con-
sequence of the inadequate means at the disposal of the Sanitary Autho-
rity to deal with it. A deputation from the Corporation, headed by the
Mayor, has attended a meeting of the subscribers to the Fever Hospital,
and explained the serious difficulty they were in with regard to the treat-
ment of infectious cases, and that they were now advertising for a site
upon which to erect a hospital. The Committee of the Fever Hospital,
under the circumstances, were willing to consider a proposal to rent a
portion of their premises. The Medical Officer for the borough reports
that a number of prisoners in Armley Gaol were suffering from small-
pox, of whom one had died; other cases had broken out in other parts
of the borough, and he was at his wits' end how to deal with them.

Infringing the Factory Act.—A firm of bird-cage makers and wire workers,
of East Surrey-grove, have been summoned at the Lambeth Police-court
by Mr. Redgrave, the inspector, for employing boys after the time
allowed by the Act of Parliament—such employment being persisted in
after a caution by the inspector. There were four summonses: the
defendants were ordered to pay a fine of 40s. upon the first, and 10s. on
the other three, with costs.

London Fish Supply.—The Chairman (Mr. Parkes) of the Great Eastern
Railway Company, at the half-yearly general meeting last week, rather
sharply, but we think justifiably, criticised the apathy of the Corpora-
tion of London on this question. He announced that the Great Eastern
Market for vegetables and fish at the Bishopsgate Station would be
opened in June next, except in the event of any legal interference from
the Corporation, in which case the Company was prepared to fight the
question out to the end.

Dr. Glanville O'Brien Elliott, Dominica.—Letter received with thanks.

Munificence.—It is stated that the following bequests have been left to three medical charities in Manchester by the late Mr. John Pendlebury, viz., £20,000 to the Royal Infirmary, £20,000 to the Salford Royal Infirmary and Dispensary, and £10,000 to the Children's Hospital.

Small-pox Epidemic, United States.—The Executive Committee of the National Board of Health has declared the existence of a small-pox epidemic, and insists upon the adoption of stringent measures—*inter alia*, the establishment of quarantine stations—in order to prevent the spread of the disease.

A Dustman's Home.—At an inquest held by Dr. Danford Thomas at Islington on the body of a little child who had died from bronchitis and inflammation of the lungs, it appeared that the deceased was one of three children living with their parents in a back room in a house in Pickering-street, Islington, which was described by a medical witness as being totally unfit for human habitation. He had never seen a worse place; there was scarcely a rag to cover the shivering children, and he was certain that under such condition a child must contract disease of the lungs and die. Another of the children was lying at the point of death at the time the deceased was in his coffin. The father is a dustman in the employ of the Islington Vestry, but in constant work; the mother had been compelled to go out to work to provide for the family, and the children had in consequence been greatly neglected. Nearly everything they possessed had been pawned to buy food. Why, it may be asked, has not the Islington Vestry taken legal proceedings against the landlord of this wretched den?

Liquor Licences to Jews, Russia.—The Local Municipality of Saratov has refused to grant liquor licences to Jews during 1882. Many other communities have also declined to allow Jews to have any more to do with the sale of spirits.

St. John Ambulance Association and the Continent.—Four well-attended classes for women and one for men have been opened at Cannes. The lecturer is Surgeon-Major F. B. Baker, Grenadier Guards, who has been sent out for this special purpose. Classes have also been formed at Nice and Mentone, where Dr. Armand Leslie, formerly on the staff of the National Society for Aid to Sick and Wounded in War, will lecture; while other classes have already commenced at Malta, so long the principal stronghold of the Order of St. John.

Impoverishing Milk, Exeter.—A raid has just been made upon the farmers who send milk into this city for sale. Three of them were fined for extracting a large percentage of cream from the milk; but one, a leading farmer, gave notice of appeal.

Services Recognised.—Dr. Jeffrey (the President) and the members of the working committee of the recent Sanitary Exhibition at Hastings have been presented with silver medals. Another similar exhibition is arranged to take place in the town next year.

Canal-boat Children.—In France, no child is allowed to live or work in a canal-boat under fourteen years of age, and no woman is permitted to live in the barge cabins without special permission from headquarters, although there is ample space for them. To prevent breaches of the law in these respects, special officers are appointed by the Government to board the boats, barges, etc., at certain points.

COMMUNICATIONS have been received from—

Mr. B. HOWARD, London; THE SECRETARY OF THE HUNTERIAN SOCIETY, London; THE REGISTRAR OF THE ROYAL COLLEGE OF PHYSICIANS, London; Dr. LUCAS, Ahmedabad, India; Mr. J. DICKSON, Dorking; THE LOCAL GOVERNMENT BOARD, London; Dr. MICKLE, London; MESSRS. LEE AND NIGHTINGALE, Liverpool; THE SECRETARY OF THE GLASGOW LOCK HOSPITAL, Glasgow; Dr. OLIVER, Boston, U.S.A.; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Dr. CREIGHTON, London; Deputy Surgeon-General W. J. MOORE, M.D., Bombay; THE HONORARY SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Mr. J. CHATTO, London; Dr. ASHBY, Manchester; Dr. ROBERTS, London; Dr. HOWARD, London; Dr. MOORE, Dublin; THE SECRETARY OF THE PATHOLOGICAL SOCIETY OF LONDON; THE SECRETARY OF THE CLINICAL SOCIETY OF LONDON; THE SECRETARY OF THE ROYAL INSTITUTION, London; THE SECRETARY OF THE NATIONAL HEALTH SOCIETY, London; THE SECRETARY OF THE LYING-IN HOSPITAL, Liverpool; Dr. WAHLTUCH, Manchester; THE SECRETARY OF THE ODONTOLOGICAL SOCIETY, London; Mr. MARK JUDGE, Parkes Museum; Mr. WILLIAM CARTER, Liverpool; THE ASSISTANT-SECRETARY OF THE ROYAL MICROSCOPICAL SOCIETY, London; THE SECRETARY OF UNIVERSITY COLLEGE HOSPITAL, London.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Gazzetta degli Ospitali—Centralblatt für Gynäkologie—Medical Brief—Detroit Lancet—Medical News—Philadelphia Medical Times—Australian Medical Journal, October 15 and November 5, 1881—Chemists' Journal, January 6 and 27—Anti-Compulsory Vaccination Reporter—Brain—Madras Standard, January 6—Chicago Medical Review—Glasgow Herald, January 30—American Journal of Medical Sciences—Edinburgh Medical Journal—Glasgow Medical Journal—Anales del Circulo Medico Argentino—Revue Mensuelle de Laryngologie, etc.—Midland Medical Miscellany—Archives Générales de Médecine.

BOOKS, ETC., RECEIVED—

Annual Report of the Society for the Abolition of Vivisection—Lectures on Curvature of the Spine, by William Adams, F.R.C.S.—A Case of Acute Lead-Poisoning by Red Oxide of Lead, by Assistant-Surgeon Kanny Loll Day, Rai Bahadur—The Other Side of the Opium Question, by W. J. Moore, L.R.C.P., M.R.C.S., L.S.A.—Augenkrankheiten bei Masturbationen, von Prof. Dr. Hermann Cohn, in Breslau—On the Action of Salicylic Acid, etc., by T. Mitchell Prudden, M.D.—Address delivered at the Dedication of the Hall of the Boston Medical Library Association—Obstetric and Gynaecological Literature, by James R. Chadwick, M.D.—The Preservation of Body, and Soul, and Spirit, by Alfred Barry, D.D., D.C.L.—Teaching and Healing, by H. P. Liddon, D.D.—On Sea-Sickness, by J. R. Stocker, M.B., M.R.C.P.—Plaisdon Hospital Report.

APPOINTMENTS FOR THE WEEK.

February 4. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. E. Pauer, "Ludwig van Beethoven."

6. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. K. Parker, "On the Morphology of the Mammalian Skull." Lect. I.

ROYAL INSTITUTION, 5 p.m. General Monthly Meeting.

ODONTOLOGICAL SOCIETY, 8 p.m. President's Introductory Address. Casual Communications: Messrs. Sewill, Hutchinson, and Dr. Campbell.

MEDICAL SOCIETY OF LONDON, 8½ p.m. The Lettsomian Lectures, by Mr. Hutebinson Royes Bell, "On Acute and Chronic Orchitis." Lecture III.

7. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Professor John G. McKendrick, "The Mechanism of the Senses."

ANTHROPOLOGICAL INSTITUTE, 8 p.m. Ordinary Meeting.

PATHOLOGICAL SOCIETY, 8½ p.m. Specimens: The President and Dr. Goodhart—Addison's Disease. Dr. B. Fenwick—Incompetence of Tricuspid Valve. Mr. Shattock—Congenital Tumour of Neck. Dr. S. West—(1) Cardiac Hypertrophy; (2) Fatty Degeneration of the Heart. Dr. Norman Moore—(1) Specimens of Gout; (2) Osteoma of Tibia. Dr. Hale White—Changes in Medulla Oblongata causing Sudden Death. Mr. Morris—Unreduced Dislocation of Hip. Dr. Roger Williams—(1) Sarcoma of Bladder; (2) Acute Suppurative Arthritis. Mr. Davies-Colley—(1) Congenital Hypertrophy of Toes, etc.; (2) Inguinal Hernia. Mr. H. Bendall—Acute Farcy in Man. Comparative Pathology: Fracture of Femur in a Puma; Pneumothorax in a Coati; Cystic Kidney in a Pig.

8. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Midlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Reginald Thompson.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. K. Parker, "On the Morphology of the Mammalian Skull." Lect. II.

HUNTERIAN SOCIETY (London Institution) (Annual General Meeting for the Election of Officers, 7½, 8 p.m. The Hunterian Oration will be delivered by Dr. Robert Fowler.

ROYAL MICROSCOPICAL SOCIETY, 8 p.m. Annual Meeting for Election of Officers and Council.

9. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor H. N. Moseley, "Corals"

10. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. K. Parker, "On the Morphology of the Mammalian Skull." Lect. III.

CLINICAL SOCIETY, 8½ p.m. Mr. Knowsley Thornton, "On a Case of Threatened Suppression of Urine after Ovariectomy; Arms packed in Cold Wet Towels; Recovery." Mr. Balmanno Squire, "On a Case of Erythema Iris." Dr. D. W. Finlay, "On a Case of Aneurism of Ascending Aorta" (patient will be shown). Mr. R. J. Godlee, "On a Case in which a Piece of Grass swallowed by a Child made its Exit in an Intercostal Space."

ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Prof. Frankland, "The Climate of Town and Country."

ORIGINAL LECTURES.

PRESIDENTIAL ADDRESS

DELIVERED AT

THE OBSTETRICAL SOCIETY OF LONDON.

By J. MATTHEWS DUNCAN, M.D., F.R.C.P.

AFTER hearing these reports, gentlemen, we have no hesitation in recognising the prosperity of this Society, now entering on its twenty-fourth year of existence. We have lost fourteen members by resignation and fifteen by death, not including two honorary Fellows who have died. At present our Society numbers 745 members; and at our present numbers, which are not the highest reached by us, we are by far the largest Obstetrical Society in existence, or that has ever existed.

The state of our funds is gradually improving; and of this I need not speak in detail, for I am sure the Society has sufficient corporate spirit to provide any funds that it may need for the carrying out of its projects, if there were a demand beyond our ordinary income.

Our scheme for the examination and certifying of midwives is gradually gaining favour, and is, I doubt not, destined to a great future. Dr. Aveling continues to watch over it with zealous care, and we shall support his and all efforts to make it the basis, or one of the bases, of our appeal to Government to take in hand the much-needed registration of midwives. During the year forty-four applicants have been examined, and of these thirty-nine have had a diploma granted to them.

One of the very greatest objects which this Society has set before it is the formation and maintenance of a special library, and you have received the good report of Dr. Herman, your honorary librarian. During the year our acting librarian and professional brother, Watson, has died under tragical circumstances. He was much esteemed, and a valued servant. His place has been filled by Mr. Savage, who bids fair to be efficient and popular among us. To every member of this Society the library should be dear, as a pet or hobby; and I do not go too far in saying that almost every member can do some signal favour to it, and thus to the profession. Most medical men have some rare book or books, or at least books not in the library; and I boldly assume the function of a beggar, and say, give them now, or leave directions in your will that they be given when they are no longer of any use or pleasure to you. During the year the library has risen from 2919 to 3056 volumes.

During the session a large number of specimens has been shown, with more or less of accompanying oral description and comment; and this part of our evening employment has been most interesting and valuable. These are the minor contributions to our proceedings, and we heartily welcome specimens and observations which are quickly brought before us lest they should be utterly lost to science, or have their freshness and striking peculiarities dimmed by delay.

It is to our deliberately prepared and previously announced communications that I next refer; and they are our great and lasting work, the only possible monument, *cere perennius*, of a society like ours. These have been worked out at the bedside or in the laboratory, and carefully prepared in the scanty leisure hours of the study; and if we look to the position and professional activity of the authors, we shall only the more admire their zeal and powers of utilising their *hora subsecivæ*. These papers have amounted in number to fifteen, and I dare say that were they a hundred we should not be satiated. Yet, while we have had our hours of meeting completely filled, we might surely have more papers than fifteen from 774 members; and, looking at the position of most of the writers, and at the character of their papers, I would make an appeal to our younger members, who have most time, youthful vigour, and openness to new ideas. A course of delightful, hard, unflinching work at some one of

the almost innumerable and generally easy problems lying around and awaiting solution would produce for this Society a valuable work, and for the author abundant reward. There can be no question that we at present owe to Germany the greater and the better part of the obstetrical work of the world, and we should look there for example. Doing so, we find a great deal is done by young men in the period of life just after graduation, when there is not much occupation or practice, and therefore much leisure for scientific work. These young physicians are often guided in the direction of their efforts by physicians of age and knowledge, who know the problems that are awaiting solution.

Looking over the papers of last session, I have arranged them in three classes—a very imperfect classification—involving, however, some ideas. There are four papers the production almost entirely of the laboratory or the study—first, an anatomical paper by Jastreboff on the ganglion cervicale uteri, enunciating views quite new in this country, regarding the dependence of functional and organic disease on previous disease in the plexus of the ganglia; second, an anatomical paper by Heath, giving a report of an elaborate dissection of a diseased and malformed foetus; third, an anatomical paper by Percy Boulton on a rare malformation of the vagina; fourth, a statistical paper by Rigden, embodying the results of a long private practice.

There are in the second class six papers conjoining clinical observation with clinical remarks and practical criticism. First, a paper by Heywood Smith on a case of delivery in atresia vaginæ; second, Galabin's case of abdominal section in extra-uterine combined with intra-uterine pregnancy; third, Galabin on pregnancy complicated with cancer of the cervix; fourth, Braithwaite on non-capsulated fibroids resembling retained placenta; fifth, Hickinbotham on a case of placenta prævia complicated by a large myoma; and, seventh, Moullin's case of myxœdema with pregnancy.

There are in the third class five papers in whose composition we find clinical remarks and scientific elaboration or development, or an attempt thereat. First, a great paper with appendix, by Barnes, on missed labour and lithopædion; second and third, two very valuable and mutually-related papers by Herman and Godson, the former on the relations of flexion to dysmenorrhœa, the latter on dysmenorrhœa and sterility; fourth and fifth, two papers by your President, one on phlegmasia dolens, and one on shortness of the cord as a cause of difficulty in labour.

We have here and in the other volumes of our *Transactions* a great variety of subjects treated, and different methods adopted in treating them, with a view to progress in the art and science of medicine. The objects are different, and the subjective treatment with a view to the same end varies, according to the genius of the author, from the mere empirical method on the one hand, to the modern rigidly scientific method on the other. Between the two extremes we see all the shades of distinction between the Tory and the Whig. We find at the one pole the followers of Hippocrates, of Sydenham, of Bright, and at the other those who pursue their work by the aid of the microscope, the test-tube, the thermometer, etc. We find on the one hand the old observational clinical method, on the other the application of physics and of chemistry. There is the band of workers who delight in the hospital and the voluminous case-books, and there is the other band who delight to retreat to the laboratory and to their calculations. In short, there are the old and the new—those who study mainly the patient, and those who study mainly the disease.

The long march of advancing research is ever increased by opening of new fields and by the discovery of new instruments, and it is our duty as a society to hasten the business. Every man, according to his bent, can find congenial occupation, from him who delights in general views and practical utility, to him who analyses and measures. The work of all kinds is required, is indeed essential, and we have, as our duty here, to gather it, to sift it, and to publish it.

At all times, and never more than at present, contemporary renown is awarded to the young and daring, the original research, the instrument of precision, the clever hypothesis; and it has been, and is now, usual for seniors and those looking amidst the difficulties of practice to disparage the juniors toiling in the laboratory. But there is truly no wisdom or justice in disregarding or deprecating any honest work, whether it be that of philosophic old-fashioned generalisation, or that of the highest power of the micro-

scope. Great physicians were at one time young workers, and the best will be those who combine the two kinds of mental activity, or who have passed from the one to the other. The practitioners will have wealth and power, the modern investigators will have renown. Both are indispensable to progress, and each should encourage and help the other.

Dr. Alfred Henry McClintock, one of our Honorary Fellows, was born in 1821, and died in 1881, of disease of the heart and apoplexy. He was early apprenticed to Dr. Brunker, Surgeon to the Louth Infirmary, received most of his medical education in the Park-street School of Medicine in Dublin, and at twenty-one years of age acquired the licence of the Royal College of Surgeons of Ireland. He then spent six months in Paris, which in 1842 was almost the only school regularly attended by young British medical men. In 1844 he received the degree of Doctor of Medicine from the University of Glasgow. His student-life was now closed, and he at once dedicated himself to the obstetrical department of the medical profession, in which he continued steadfastly and zealously working till he died at the age of sixty years. Having, as I have said, concluded that part of his life which was devoted to his own education, and having received the ordinary degrees or testimonials of the completeness of his professional equipment, he did not cease to be a student, as his works testify; but his studies were now destined to benefit not himself only, but the public and the profession. He devoted himself to obstetrics, and had the great good fortune, at the commencement of his career, to get the office of Assistant-Master in the Rotunda, under Dr. Charles Johnson. He resided in the hospital for three years. Nine years after he left the Rotunda he returned to it as Master, an office which he held for the usual term of seven years. These combined seven and three years, ten in all, were, no doubt, the foundation of his greatness, his usefulness, and his fame. Within the bounds of the United Kingdom greater advantages for the production of an obstetrician could not elsewhere be found—none, indeed, nearly equal. The science of obstetrics owes much to the great Lying-in Hospital of Dublin, the only great one in these kingdoms. It is surely, in this assembly, useless to descant on the enormous gains to medicine derived from such institutions. For Ireland this one has produced an unbroken line of great masters of the art of midwifery, and secured for the School of Dublin an enviable perennial distinction. Ten years of connexion with it made McClintock a great master in midwifery, and afforded him materials for his scientific contributions. The history of midwifery, while it shows us that very great works—the greatest, indeed—may occasionally be accomplished by men who have not the advantages of a large hospital, demonstrates that it is chiefly from large hospitals that science derives its living continuous stream of progress; and that in them resides the best touchstone of practice. Moreover, there is a kind of wealth and maturity of experience derived from them that alone can endow a wise physician with a superior wisdom. Of these truths the history of the Rotunda and the history of Dr. McClintock are good illustrations. Of some of the work which Dr. McClintock did in the hospital we have a valuable record in his numerous published papers, many of which deserve collection and republication. We have, in addition, a great body of laborious observation and research in a book which he and his friend Dr. Hardy combined to produce—a report of the great hospital's doings during three years of Dr. Charles Johnson's mastership, entitled, "Practical Observations on Midwifery and the Diseases incident to the Puerperal State." This valuable work is founded on the observation of the labours of 6634 women, taking place between January 1, 1842, and January 1, 1845. It was published in 1848. In 1863 he produced his "Clinical Memoirs on Diseases of Women," a work whose primary object, he says, is to embody some of the fruits of eleven years' experience in the gynæcological wards of the hospital; and which, he adds, would not have been undertaken at all but from a sense of the debt and obligation which the opportunities of a hospital imposed upon him. Besides all this, he did further professional work in giving lectures on Midwifery and the Diseases of Women in the Park-street School of Medicine. Dr. McClintock's numerous papers, his two volumes of original work, and his lectures, were what may be called tangible or substantial fruits of his study and practice; but knowing him as we do, we may be sure that, beyond his mere services to the patients under his care,

and his printed or spoken teaching, an immense amount of influence for good constantly emanated from him to the practitioners, students, and nurses who were brought into contact with him. The power of every word and of every look of a respected teacher can scarcely be over-estimated; and I feel sure that Dr. McClintock justly appreciated his great responsibility in these respects, and well repaid the debt and obligation which the opportunities of an hospital imposed upon him. He was an example of usefulness, truthfulness, and gentleness. These do not, nevertheless, advance science or produce diligent and successful pupils; but they are qualities diffused by example, and they form the best ornaments of the man of knowledge, genius, and skill; and their deficiency should always be, and is, enough to induce abatement of affection and respect, however much room may remain for bare admiration. McClintock received during his career many honorary distinctions and tokens of respect. He was Doctor of Laws of the University of Edinburgh, Master of the Obstetric Art of Dublin, Honorary President of the Dublin Obstetrical Society, Honorary Fellow of the American Gynæcological Society, of the Edinburgh Obstetrical Society, etc. Besides, he held many high professional offices, of which the last and not least was President of the Obstetrical Section of the International Medical Congress of London.

Dr. Thomas Radford was born near Manchester in November, 1793, and died there in May, 1881, aged eighty-eight. He was educated at Chester, and when seventeen years of age was apprenticed to Mr. Wood, an eminent general practitioner in his native town. He had his medical education partly in Manchester, and partly in Guy's and St. Thomas's Hospital. At the age of twenty-four he became M.R.C.S. and L.S.A.; and next year, 1818, he obtained the office of Surgeon to the Manchester and Salford Lying-in Hospital. So, like all great obstetricians, he began life in obstetrical harness in a hospital, and he ended life holding the offices of Consulting Physician and Chairman of the Board of Management of the same institution. He lectured on Midwifery in two Manchester schools of medicine successfully for many years, and in 1854 he, in Manchester, gave the first address on obstetric medicine to the Provincial (now British) Medical Association. He published many papers, and took always keen interest in all obstetrical proceedings. He was one of the first Vice-Presidents of the Obstetrical Society, a Fellow of the Royal College of Physicians of Edinburgh and of the Royal College of Surgeons of England. Radford lived in a great city, historically and now famous in obstetrics. Of the present good maintainers of its just eminence I shall not speak, and I need say nothing regarding Mr. Charles White who flourished in the end of last century, or of Dr. Hall at the beginning of this one. Besides these, Manchester has produced Kinder Wood, Robertson, and Charles Clay. The obstetric work of Manchester that is best known, because it made great noise in its day, has reference to Cæsarion section; and to the questions, still far from settled, regarding this operation, Radford naturally devoted attention. Indeed, his best known work is on Deformities of the Pelvis and Cæsarion Section, and of it a second edition appeared so late as 1880. Not the least part of his good life-endavour is to be read in a book which he neither wrote nor published, but which we owe to the zeal of one Fellow, Mr. Cullingworth. This book appeared in 1877, and is entitled "Catalogue of the Radford Library, St. Mary's Hospital, Manchester," and it is a record of magnificent and enlightened generosity. "In the year 1853," says Mr. Cullingworth, "St. Mary's Hospital, Manchester, was enriched by the gift of a very valuable library and museum. They were named respectively 'Radford Library' and the 'Radford Museum,' so that the name of the munificent donor might be permanently associated with his gift. Both had been founded by Dr. Radford himself, and the many important additions since made to the library have all been presented by him. I have (he adds) Dr. Radford's permission to state that he has also placed an endowment fund of £1000 in the hands of trustees, and that the interest of this sum, which will become available at his death, will be devoted exclusively to the maintenance and extension of the library."

Otto Spiegelberg, an Honorary Fellow of this Society, and deservedly one of the most famous of modern obstetricians, was born on January 9, 1830, at Peine, in Hanover. He

died of contracted kidneys and heart-disease, at Breslau, on August 9, 1881, at the early age of fifty years—a deplorable event suddenly arresting in mid-career a life of very great activity and beneficence in both science and practice. Spiegelberg received a classical education at Hildesheim, and at the early age of eighteen entered the University of Göttingen. Here he already showed his inclination towards the pursuit of midwifery, and so attracted the regard and esteem of his teacher, E. C. J. von Siebold, that he took him with him to Vienna on a scientific expedition in 1852. On his return to Göttingen, Spiegelberg set about the study and practice of midwifery with the zeal destined never to wane. In 1855 he made a scientific journey to England, Scotland, and Ireland. I remember the bright-eyed, zealous youth, and his friend Breslau, diligently seeking all kinds of knowledge in Edinburgh when my highly-prized acquaintance with him began, soon to ripen into a mutual friendship which lasted till his death. In 1860 he published a small text-book of midwifery, and in the same year he was made Extraordinary Professor of Midwifery in the University. In 1861 he was called to Freiburg as Professor Ordinarius, and then he married Fräulein Louisa de Bary. After two years in Freiburg he went to Königsberg as Professor, but before he was well settled there he accepted the same office in Breslau in 1865. He thus held four professorships of midwifery successively; but this is not all, for he had the great honour of being invited in 1878 to the professor's chair in Strasburg—a professorial career of remarkable variety. In 1870, co-operating with the well-known and highly esteemed Professor Credé, of Leipsic, he started the *Archiv für Gynäkologie*, and to it he contributed many valuable papers in midwifery, but especially in gynæcology, to which latter department he was specially devoted during the latter half of his professional life. This great journal, conducted by Credé and Spiegelberg, has done very great honour to its conductors and contributors, being by far the best obstetrical periodical that has ever appeared; eminently distinguished for its high scientific character, successfully pushing obstetrics and gynæcology into that truly scientific position which it is our highest ambition as a society to promote. In this journal there appears a necrological account of Spiegelberg, to which I am indebted, and for which we have to thank Spiegelberg's warm and admiring friend, Leopold. The great, I mean to say the immortal, work of Spiegelberg is his *Lehrbuch*, which appeared in 1878, and of which the second edition is only partially published. In a letter I had from him a few days before his death, in which he discussed the prospect of his coming to the International Medical Congress, he mentioned that he was far advanced into the second half of his larger work, and that he hoped soon to complete it. The first edition of this book is only nominally a second edition of the small *Lehrbuch* which he published in 1858 while still at Göttingen. The *Lehrbuch* of 1878 is about the largest system of midwifery that has ever appeared. It is greatly to be lamented that he did not live to finish the new edition and to edit even still more. Only second to the best original work is the production of a first-rate *Lehrbuch*, and in this I believe we have an example of unsurpassed excellence. The two parts of the work which still await publication are, I believe, to be edited by Dr. Wiener, lately assistant to Spiegelberg.

Dr. James George Wilson was the son of a distinguished accoucheur of great experience and fame, who practised in Glasgow, and whom I remember as a venerable figure, highly respected in the profession. He is still memorable as taking an early and active part in the promotion of the treatment of labour complicated with contracted pelvis by delivery after podalic version—a mode of dealing with such cases which is still far from having the limits of its applicability thoroughly well defined, there being many differences of opinion regarding principles as well as important details. His son, James George, was born and bred in an obstetrical atmosphere, and grew into nothing else than an obstetrician. His mind was always occupied with this study, and his life filled with the practice. He enjoyed the confidence of his professional brethren and of a large circle of patients and friends. When the Chair of Midwifery in the University of Glasgow became vacant by the death of Dr. Pagan, many regarded Dr. Wilson as the best candidate for the office; but, as is well known, he was beaten by our respected Fellow, Professor Leishman. In 1863, however,

he was elected to the Chair of Midwifery in Anderson's College. In 1855 he was appointed Physician to the Glasgow Maternity Hospital; and in 1875 he became a Consulting Physician to the same institution; and it is interesting to notice that with this Hospital he and his father had had official connexion since 1834—that is, for forty-seven years. This long stretch of time for experience yielded valuable fruit in the matured wisdom of both father and son. Dr. Wilson had overflowing enthusiasm in the study of midwifery as a science and as an art; but his contributions to medical literature were all of the kind called practical. They are mostly to be found in the pages of the *Glasgow Medical Journal* and of the *Medical Times and Gazette*. His fellow-townsmen, Dr. W. L. Reid, has sent me a list of fourteen papers by him, and of these, the first, on a case of Aneurism, appeared in the *Glasgow Medical Journal* for 1855; and the last, being notes of Unusual Obstetric Cases, in the same journal for 1879. Dr. Wilson, in the course of his life, held several important obstetric offices, and was awarded several medical titles of distinction, not the least among which was that of Vice-President of this Society, an office to which he was promoted in 1865.

Gentlemen, it has been to me a great pleasure to preside over your meetings, and I have to acknowledge with gratitude your uniform courtesy. While reflecting with much satisfaction on our past year's work, let us strive to make that of the next surpass it.

RHEUMATIC OEDEMA.—Prof. Potain draws attention to a form of oedema supervening under the influence of the rheumatismal diathesis, which is usually of favourable prognosis, but which at first sight might seem to be due to some serious affection, as disease of the heart or kidneys. This oedema is recognisable by its mobility, the good general condition, and the absence of any cause beyond antecedent or co-existing arthritic manifestations. It is marked by a peculiar consistency or hardness, as if the liquid remained confined within the cells. Sometimes these tumefactions become more localised, and then may be mistaken for tumours or collections of fluid. Rheumatic oedema indeed shows itself under extremely variable appearances which may easily give rise to errors of diagnosis.—*Jour. de Méd. Pratique*, November.

IODINE AND BURNT ALUM IN INTERMITTENT FEVER.—In a communication to the Calcutta Medical Societa (*Indian Medical Gazette*, January), from Baboo Brojendry Nath Banerjee, giving an account of his experience with tincture of iodine (ten-drop doses) in the cure of intermittent fever, he states that he has employed it largely since 1878. At first his success was remarkable, but later experience has not been so successful. He believes that many of his earlier trials were made in cases which spontaneously recover in a few days, and others (about 7 per cent.) in cases of what he calls the “ephemeral, or one-day fever,” in which the temperature suddenly rises to 105° or 106°, the pulse increasing to 120 or 130, with quick and laboured respiration, intense headache, and even delirium. Under whatever treatment, the fever does not recur, and the medicine given seems to “cure as if by magic.” Still, although iodine will never rival quinine, and very much more often disagrees with the patient, yet in about 55 per cent. of cases it will effect a cure; but no generalisation can be furnished as to the cases in which it is especially applicable. The author of the paper also stated that he had, during three years, used *burnt alum* with great success in doses of eight grains each. Its utility is, however, confined to cases in which the attack comes on with clock-like regularity, while it fails in irregular types of intermittent. In about 60 per cent. of proper cases it cured in two doses, one given three hours, and the other one hour, before the expected attack. In 15 per cent. two more doses were required, as the paroxysms returned once, and in 12 per cent. six doses were required, as the fever recurred twice before it ceased. In the remainder the alum failed.

ADMINISTRATION OF CASTOR OIL.—Take a moderate-sized wineglass, put in it a teaspoonful of sugar, four drops of essence of peppermint, and two teaspoonfuls of water. With the finger rub the peppermint water all over the inner surface of the glass, and then add the oil. Give it a whirl or two, and drink it off. It must be done quickly, but it is quite tasteless if the above directions are faithfully carried out.—*Louisville Med. News*, January 21.

ORIGINAL COMMUNICATIONS.

THE CASE OF MICHAEL McMANN.

By R. BRUDENELL CARTER, F.R.C.S.,
Ophthalmic Surgeon to St. George's Hospital.

THE trial of Dr. Abrath and of Michael McMann, for an alleged conspiracy to defraud the North-Eastern Railway Company, has furnished a curious example of the unsatisfactory character of the process by which medical questions are still determined in courts of law; and, as I was present at the inquiry, both before the magistrates by whom the defendants were committed, and also during the trial, I venture to offer for publication some account of those elements in the case which are of interest to the medical profession. The charge was that the defendants, one of whom was said to have sustained injury in a railway train, had conspired together to exaggerate the consequences of this injury, or to simulate conditions which had not really been produced, for the purpose of obtaining money from the company.

On Friday, September 10, 1880, McMann was a passenger in a train which was standing at the Ferry Hill Station, with continuous brakes applied to all its wheels. He was in a third-class compartment in the last vehicle but one, the last being a guard's van; and he was sitting with his face towards the engine, and with another man opposite to him. Six empty vehicles, five carriages and a fish van, were about to be attached to the rear of the stationary train, and they by some means broke away from the engine which was pushing them, and ran against the guard's van with a slight shock. The engine of the stationary train was not moved, but some of the vehicles at the rear of the train were pushed forwards as far as their buffers would allow, and were then, by the recoil of the buffer springs, restored to their original position. There were about a hundred passengers in the train; and two children, who were standing up at the time, were thrown down, so that their foreheads were bruised and they were made to cry. In the guard's van, which received the first shock, loose parcels were not thrown from a shelf on which they were placed; and, except the two children mentioned, no passenger made any complaint. The train proceeded on its journey, and lost no time in consequence of the incident. A solicitor, who was a passenger, deposed at the trial that he noticed the shock as a matter of shunting, but that it neither disturbed his perusal of his newspaper nor induced him to make any remark to the other occupant of the compartment in which he sat.

Upon McMann, however, the effect was said to have been more serious. He alleges that he was first thrown forwards upon the passenger opposite to him, receiving a blow which cut his lip against a tooth; that he was then thrown backwards against the partition behind him; that he finally "slithered down," with his back against the edge of the seat, until his posteriors reached the floor; and that he thinks he lost consciousness for a short time, during which the other occupants of the compartment, who had escaped injury, got out to see what had happened.

McMann is an Irishman, living in Sunderland, described as a "general dealer," and unable to read or write. From such a person it would be unfair to expect extreme accuracy; but it is manifest that his version of what occurred cannot be even approximately correct. In the actual circumstances, when the carriage was pushed forwards, the *vis inertiae* of his body would have brought first his back, in the region of the shoulder-blades, and then, if the force were sufficient, his occiput, or the brim of his hat, into contact with the partition behind him. As the carriage was restored to its original position by the buffer springs, the recoil might have thrown him forwards against his neighbour; and then, in so slight a shock, it is difficult to conceive that anything more could have happened, or to see any reason why he should have "slithered down" in the manner described.

In due time the train reached Sunderland, and McMann walked home. On the following day he is said to have carried upon his back a bag containing more than a hundred-weight of iron; but this is denied. On the third day (Sunday) he went to early mass, and afterwards to see his horse, which was grazing in a field "half an hour's walk away."

In this field he met a friend or friends, who advised him to consult Dr. Abrath, who was known to have had experience in "railway cases"; and he went to the doctor's residence accordingly. In the general conflict of evidence, it was hard to know what to believe; but the impression left upon my mind was that McMann walked to Abrath's with moderate ease, and that after an interview with the doctor he came away in a bowed position, not with any appearance of a paraplegic gait, but bent forwards, and saying to those who waited for him, "Oh! I is bad!" He returned home, took to his bed, and it was shortly afterwards announced that his lower limbs were paralysed. A solicitor wrote to the railway company to make a claim for compensation on his behalf; and Mr. Jeaffreson, of Newcastle, was instructed by the company's medical officer to visit him. In the meanwhile McMann had been removed from his former residence to a place near to Dr. Abrath's house, and Dr. Abrath is said to have been very sedulous in his attendance upon him.

Mr. Jeaffreson went on October 4, twenty-four days after the alleged accident, and met Dr. Abrath. McMann was lying on his back, complaining of great pain, and of want of power to move his lower limbs. His pulse was 75, of normal quality, his skin cool, tongue clean, and general appearance that of a healthy man. With many complaints, and with much appearance of difficulty, aided by his hands, and, if I remember rightly, by Dr. Abrath also, he turned upon his face in the bed. He called out loudly whenever his back was touched, in whatever part or however gently; insomuch that Mr. Jeaffreson found it impossible to make any detailed examination. The skin of the back was almost universally red and congested, from the application over its whole surface of mustard poultices or other irritants; and upon the sacral region there were two sores, which afterwards became important elements in the case.

As far as I could gather from the descriptions given of them, and from a rough drawing made by Mr. Jeaffreson, these sores were each about equal to a florin in superficial extent, but were somewhat oval, with their major axes vertical. They were on the same horizontal level, their upper margins about an inch lower than the crests of the ilia. That on the left buttock almost touched the median line of the body by its inner border; while the inner border of that on the right buttock was about an inch external to the median line. They were superficial sores, with sharply defined edges and symmetrical outlines; and Mr. Jeaffreson's first impression was that they were issues which had been made for the purpose of treatment. One of them was entirely raw; the other was partly covered by a pellicle of new skin, and was in course of healing. Mr. Jeaffreson asked Dr. Abrath whether he had been applying moxas; and was told, either by Dr. Abrath or by McMann, or by both of them, that the sores were wounds which had been produced in the accident, and that they were occasioned by falling upon fragments of Brazil nutshells on the carriage floor.

Mr. Jeaffreson conveyed to the railway authorities his belief that the sores were artificial, and that there were many elements of suspicion in the case. He therefore asked that some other surgeon might share with him the responsibility of advising; and for this purpose he saw McMann again, with Mr. Wheelhouse, of Leeds, on October 11.

On this second occasion the complaints made were much the same as before, but the general condition of the patient was more depressed. The pulse was 104; the axillary temperature 99.2°; the sores were of the same size, but that which had been healing was open over the whole of its original extent. It was alleged that there was extreme irritability of bladder, so that an escape of urine occurred if the frequently-felt desire to pass it were not attended to without delay; but during two hours over which the visit extended no urine was passed, either voluntarily or involuntarily, and none could be obtained for the purpose of examination. Mr. Wheelhouse concurred with Mr. Jeaffreson in the opinion that the sores had been artificially produced, and in disbelieving the reality of the alleged paralysis; and he expressed a wish to see the patient again, after an interval of a few weeks, so as to obtain materials for a more certain conclusion upon the whole case. The second examination, however, had only been granted by McMann's solicitor as a recognition of the company's statutory right; and it would have been useless to apply for a third at that time. On July 8, 1881, when the case was ready for trial, McMann was again seen by Messrs. Wheelhouse and Jeaffreson, in the presence

of Dr. Philipson and Mr. Heath, of Newcastle. As a result of that examination, Mr. Wheelhouse still disbelieved in the paralysis, but he thought the patient "really ill, and to some extent suffering"; and he advised the company to settle the claim out of court, on the ground that his mere disbelief, which he had had no opportunity of confirming, would not have sufficient weight with a jury. The sores at this time were of the same size as before, but fungating and discharging. The Company, acting upon Mr. Wheelhouse's advice, settled the claim by a payment of £1025, of which £300 was for law expenses, and the remaining £725 for the claimant himself. It was alleged on his behalf that he was still paralysed to the extent of being unable to stand or to leave his bed for any purpose, and that no improvement in his state was reasonably to be expected.

It is a fact familiar to railway officials that injured persons who have received compensation do sometimes recover with surprising rapidity; and, probably for this reason, McMann was kept more or less under observation by the company. His wife had died in childbed three months after the accident; and he was subsequently nursed and waited upon by men of his own class, mostly his brothers or cousins, and by their wives; and, soon after the payment of the money, some of these people became dissatisfied with the remuneration which had been made to them on his behalf. They began to say that the supposed paralysis had been an imposture from beginning to end; that McMann had always been able to rise from his bed, to stand and wash himself, and to walk about his room; that the sores on the buttocks had been made by Dr. Abrath, who had cut or in some way "worked upon" the scars of two old wounds in the same situations; that McMann had been reduced, prior to each inspection by the railway doctors, by low diet and medicine; and in many details to confirm the suspicions which these gentlemen had from the first entertained and expressed. The evidence thus given was arranged by a solicitor and submitted to counsel, by whose advice proceedings were taken. Dr. Abrath and McMann were brought before the Sunderland Bench in November; and, after an adjournment which became necessary in the course of the proceedings, were ultimately committed for trial. It was in the hearing before the Bench that the medical account of McMann's case, from the point of view of the doctors who had attended him, was first made known. This account was afterwards given in a somewhat different form at the assizes; but, for my present purpose, it is not necessary to distinguish between what was said at one place and at the other.

Before proceeding to this medical evidence, it may be well to mention an important incident. When the case came on for hearing at Sunderland, there seems to have been a belief that McMann, who was still on his back in bed, would be permitted to remain there on a medical certificate or on medical testimony; and Dr. Abrath alone answered to the summons. The magistrates did not take this view, but issued a warrant for McMann, and sent constables to fetch him; Dr. Abrath being at the time in court. The constables found McMann in bed; but, on their arrival, his friends turned his legs out, and placed him in a seated position on the edge of his bed, with his legs rigidly extended before him, and his heels alone touching the floor. In this position trousers were put upon him, and he was then carried to a four-wheeled cab at the door. He was lifted by two men—one of his own friends and a constable—one on either side of him. The right hand of one bearer and the left hand of the other met and clasped under his thighs, at about the junction of their middle and lower thirds, while the other arms of the men were behind his back, and his arms were round their necks, so that he was carried in a sitting posture, with no support under his legs. In these circumstances, McMann's legs were sustained in a horizontal position, and were so rigid that it was found necessary to open the opposite door of the cab to allow his feet to pass through, before his body could be turned to bring him upon the seat. As soon as he was upon the seat, he bent his knees, and his feet came down to the floor of the cab; but, when he was taken out of the cab and carried into court in the same manner as before, his legs were again extended horizontally, and were in slight tremulous movement, as if the fatigue of the effort rendered them unsteady. On all subsequent occasions he was carried in the same manner, but with his legs hanging down from the knees, until ultimately a stretcher was procured for him, and he was carried in a recumbent posture.

It was maintained at Sunderland, for the defence, that the brief rigidity of the legs was due to "spasm," and that such spasm was perfectly consistent with the other symptoms of the case. On the other hand, it was stated by Mr. Wheelhouse at the trial that the temporarily horizontal position of the legs was a circumstance which justified the most grave suspicions.

The medical witnesses called at Sunderland were Mr. Potts, Mr. Francis, and Mr. Ridley Dale; and they were reinforced at Durham by Dr. Philipson and Mr. Heath of Newcastle, and by Mr. Jabez Hogg of London. I do not propose to separate the statements of these various witnesses; but I may mention that Mr. Potts is a professing homœopath, who is on terms of friendship with Dr. Abrath, and acts for him during his absences from home; on which occasions, as I gathered from his account of the treatment which he pursued towards McMann, he temporarily detaches himself from his adherence to homœopathic doctrine, and practises like other people. Mr. Potts obtained his qualifications in 1836, Mr. Francis in 1846, Mr. Dale in 1877. Of Mr. Heath and Dr. Philipson, and of Mr. Jabez Hogg, it is unnecessary to speak.

Apart from a diminution of the electrical contractility of the muscles, to which I shall refer presently, the conditions deposed to by these gentlemen were mainly as follows:—Complete inability to move the right leg, with very limited power of moving the left leg. In this respect there was said to have been recent improvement, one consequence of which was that the patient had been able to lie upon his side "with less pain," inasmuch that the sores on his buttocks commenced to heal soon after the settlement, and were soundly healed by October 25. There was said to be complete loss of sensation in both legs, so that hairs could be pulled out, or the skin severely pinched, without the knowledge of the patient; and one witness described himself as having been overcome by the severity of some proceedings of this kind, so that he turned away and would not look at them any longer. Coincidentally with this loss of sensation in the legs, there was said to be irritability of bladder, so that the calls to pass urine were frequent, were acutely felt, and led to its escape if they were not speedily attended to. Against this, it may be observed in passing, is the fact that there was never any urinous smell about the patient's couch in either court; and that although, in the assize court in July, when awaiting the civil trial which was rendered unnecessary by the settlement, he had his penis wrapped in flannel, which he had wetted with urine, this urine was perfectly fresh, and the penis presented no trace of excoriation. The urine was further said to be phosphatic—a point which the medical advisers of the company never had any opportunity of determining; but it was not said to be ammoniacal. There was said to be constipation, requiring the use of purgatives from time to time, but there was no want of sensation in the rectum, and no loss of expulsive power. The spinal injury was localised at the last dorsal or first lumbar vertebra. Knee reflex was said to be in excess—whether in both legs or in one leg only was not stated; and ankle clonus was not mentioned as having been looked for. All the medical witnesses for the defence expressed an opinion, without doubt or hesitation, that the paralysis was genuine; and they all appeared to rest this opinion, almost exclusively, upon the results of what they were pleased to call "the application of the electric test."

This so-called "electric test" consisted in the employment of an induced current only, and was said to show a distinct diminution of muscular contractility in the left leg, and almost total loss of muscular contractility in the right. The gentlemen by whom the "test" was first applied seem to have placed their rheophores almost anyhow; and Mr. Potts, being asked where they were placed, showed upon himself that one was put somewhere in the groin, and the other precisely over the middle of the quadriceps extensor tendon, about an inch above the upper margin of the patella. Mr. Dale appears to have aimed at exciting the muscles through their motor nerves; but in describing his proceedings for this purpose before the Bench at Sunderland, he showed upon himself that he had placed both rheophores upon the same thigh; and he said that these rheophores consisted of tubes containing sponges. The remaining witnesses referred to similar methods of procedure, as far as could be gathered from their evidence; but the Judge showed so much impatience of any cross-examination of them that full informa-

tion upon the point may possibly not have been obtained. Speaking generally, it may be said that they showed no consciousness of the fact that the testing of muscular contractility by the induced current, or, still more, the comparative testing of two limbs for the determination of differences between them, is an extremely delicate process, requiring a very high degree of skill, experience, and care, in order to conduct it satisfactorily; neither did they show any consciousness of the precise value, as a diagnostic sign, of diminished contractility to this current, even supposing the fact to be established. Mr. Dale, in his examination in chief, volunteered a statement that the induced current is of great value as a means of distinguishing between real and simulated paralysis, but that it is of small value as a means of localising the lesion upon which a real paralysis may depend: thus, as I imagine, giving utterance to an opinion which is diametrically opposed to the facts.

In cross-examination, Mr. Digby Seymour, Q.C., the leading counsel for the prosecution, asked one of the medical witnesses for the defence if he knew how many varieties of electric current there were. He was about, I imagine, to ask why it was that the continuous current had not been used as well as the induced. Before he had reached this point, and while the witness was still standing in perplexed silence, pondering over the weighty problem which had been submitted to him, the Judge interposed, asking what was the object of the question? "Everybody," said this learned person, "knows what an electric shock is, and that when it is applied to your leg it jumps." The almost equally learned jury smiled an intelligent and delighted acquiescence, and Mr. Seymour refrained from pushing his inquiries further. Another medical witness appeared to have based upon a similar employment of the "electric test," in a trial a year or so ago, the statement that a certain arm was hopelessly paralysed and withering; and counsel proposed to ask him questions about this former case, the subject of which was in court with his arm perfectly recovered. The Judge, however, prevented this line of examination from being pursued, and told the jury that, even supposing the witness to have been mistaken once, it did not at all follow that he should be mistaken again.

In consequence, most probably, of electricity having been extensively used for many years, not for the detection of malingering, but for the purpose of compelling otherwise detected malingerers to desist from their practices, there has come to prevail among the public a widely spread belief that it is extremely useful in the former way also; and this belief has been strengthened by the rash statements contained in many medical treatises. As a matter of fact, the value of electricity as a diagnostic agent is far more limited than even two or three years ago was commonly supposed in the profession, and wider experience of its use tends constantly to diminish the reliance which can properly be placed upon its employment. The facts of the case might perhaps be fairly stated somewhat in the following manner.

In order to test, through the medium of the motor nerves, the comparative contractility of the muscles of two limbs to an induced current, it is first necessary to see that the current on the two sides shall encounter precisely similar degrees of resistance. For this purpose the patient should be placed with the two halves of the body symmetrically arranged, and then the skin covering the localities on which rheophores are to be placed should be thoroughly soaked and rubbed with soap and hot water, so as to remove the whole of the dry epidermis which so soon collects in a bed-ridden person, and which opposes so much resistance to the penetration of the current. One rheophore, preferably a large sponge, should then be placed in the median line of the body, as over the sternum or the nape of the neck; and the other, which should be a metallic point covered with wet leather, should be placed over the motor nerve of the muscle to be tested, in its most accessible position, and with the most minute care to place it upon precisely corresponding points in the two limbs. The current first applied should be such as will barely excite the muscles of the operator's hand, and its strength should be increased, by the numerically graduated scale which forms part of every good apparatus, until the force by which contraction is produced can be expressed in figures, first for the muscle on one side, next for the corresponding muscle of the other. The happy-go-lucky method which was described as having been adopted

with McMann is entirely untrustworthy, and does not justify the formation of any conclusion whatever about the facts of the case, even as regards the alleged diminution of contractility.

Diminished contractility to the induced current, supposing this condition to be ascertained by properly conducted examinations, is still very far from affording evidence of the genuineness, or otherwise, of paralysis. Its chief value, in point of fact, is to assist in determining the seat of the lesion on which a genuine paralysis depends. Contractility to the induced current is temporarily diminished by the wasting of muscles from disuse, and also in many forms of hysterical paralysis. It is diminished permanently in paralysis which depends upon disease of the spinal cord at the seat of the reflex motor ganglia of the affected muscles; and it is not diminished in paralysis, even when complete, which depends upon central lesion at any higher point. The temporary diminution arising from disuse, or from hysterical paralysis, is soon removed by repeated applications of the induced current, which, in the case of McMann, were not alleged to have been tried; and the permanent diminution incidental to disease of the motor ganglia is accompanied by an increased contractility to a slowly interrupted continuous current, as well as, in some instances, by changes in the conditions by which the most vigorous contraction is excited. In the case of McMann the continuous current was never applied at all.

At the conclusion of the defence, Mr. Digby Seymour proposed to call me as a witness with regard to the application of electricity, but the Judge refused to allow me to be examined. I was prepared to say that the so-called "electrical test," as described by the medical witnesses for the defence, on account of their admitted neglect of necessary precautions in the use of the induced current, and on account of their omission to use the continuous current, was absolutely without any kind of value; and that so far from its having afforded a means of deciding that the paralysis was genuine, it did not even afford materials for a rational conjecture upon the question, either one way or the other. It found a condition of doubt, and it left this doubt precisely where it was before. It was upon the so-called electric "testing," however, and upon this alone, that the most positive declarations of the genuineness of the paralysis, and those which appeared to have most weight with the Judge and jury, were avowedly based.

To sum up, the picture of the case presented by the medical witnesses for the defence was this: paralysis of the lower extremities, coming on within seven days after a very trivial injury to the region of the last dorsal or first lumbar vertebra, and remaining essentially unchanged, except for a small degree of recent improvement, during fifteen months. The paralysis had never been of the type called "spastic," nor was it dependent upon degeneration descending from some higher point in the cord; but, nevertheless, thirteen months after its commencement, there were two short periods, of five minutes or so each, of complete "clasp-knife" extension of the paralysed limbs, each such period being followed by complete relaxation. Coincidentally with this condition of occasional rigidity, there was *increased* knee reflex, and *diminished* electrical contractility. The loss of voluntary movement was complete in the right leg, and almost complete in the left; but there was no loss of expulsive power in either rectum or bladder. The loss of sensation was complete in the legs; but there was no loss of sensation in the rectum, and there was irritability, or increased sensation, of the bladder. There was loss of control over the bladder if the demand to pass urine was not immediately attended to; but there was never any urinous smell about the bed, and the only professed leakage exhibited was free from odour. Notwithstanding the loss of sensation, there were no bed-sores, and the artificial sores already referred to began to heal soon after the compensation money was paid. A spinal lesion, which produced the alleged paralysis in seven days, left the patient at the end of twenty-four days, notwithstanding constant and "agonising" pain, with a pulse of 75, of normal quality. It was proved by the unimpeachable testimony of Mr. Wheelhouse that up to July, 1881 (ten months after the accident), the wasting of the legs was not more than habitual lying in bed would explain, and that the two legs were of equal dimensions; but four or five months later, according to the measurements made by Mr. Dale, one leg was three

quarters of an inch less in circumference than the other. Mr. Dale said the left leg was the smaller of the two, although the right was said to be the more completely paralysed; but this was possibly a *lapsus linguæ*.

Now, I have vainly endeavoured to construct in my mind any spinal or other lesion which could by any possibility produce the above described conditions, and no others. I think the medical witnesses who deposed to the genuineness of McMann's paralysis owe it to the profession to explain what is the probable nature and the probable seat of his malady. I by no means wish to say that he is an impostor, for I have not examined him, and have no means of knowing; but the testimony of his own medical witnesses seems to me, if we are to receive it as correct, and if we may disregard their declared opinions, and think only of the data on which these opinions were said to have been founded, to leave no other conclusion possible.

The jury by whom the case was tried were common-looking persons, probably small tradesmen; and one of them was said to be a man who had unsuccessfully endeavoured to obtain subscriptions to a defence fund for the accused persons. He would, of course, have been challenged by the prosecution if this circumstance had been made known to them in time.

The Judge, throughout the whole of the trial, showed himself to be conspicuously deficient in certain kinds of knowledge which were indispensable in order to arrive at a fair estimate of the value of the evidence in the case. His observation about an electric shock, which I have already quoted, speaks for itself; and in his summing-up, of which I only heard the commencement, but which, so far, was an advocate's address for the defence, he dwelt upon the supposed improbability of the defendant McMann having submitted to pain and confinement in order to carry out a system of imposture, which, he also assumed, must have been framed by the defendants, in the form which it was ultimately alleged to have taken, at the first interview between them. The Judge, therefore, must be supposed not to know that malingering is common; that it is often practised from what seem to others to be very inadequate motives; that malingerers constantly, perhaps always, suffer pain and confinement without murmuring; and that, supposing the doctor to have started with no worse intention than to represent the case as somewhat more severe than it actually was, he may have been led on from step to step by the growing necessities of the position. Moreover, the Judge's mind was curiously subjugated by the word "partial," which somebody had employed to denote the nature of the paralysis; and which seemed to have for him a value analogous to that of "Mesopotamia" in the well-known story of the edifying sermon. It sufficed to explain everything that would otherwise have been inconsistent or contradictory. When a medical witness for the defence was constrained to admit that increased knee reflex and diminished electrical contractility were seldom seen together, the Judge said, "What! not if the paralysis is only *partial*?" And, if I remember rightly, he more than once interrupted counsel by the reminder, "Have you not heard that the paralysis was only *partial*?" The "blessed word," in each instance, coming as the climax of a rising vocal inflexion.

I may add that the sympathies of many persons, and of certain journals, with the defendants, as fighting against a "powerful railway company," were wholly misplaced. It was sufficiently manifest that the defence had been arranged by a far more powerful organisation—one all the more powerful from being unavowed.

Such, then, is the medical history of this remarkable case, in which, judging from the medical evidence alone, there is much reason to fear that a grave miscarriage of justice has occurred. With regard to the credibility or otherwise of the non-medical witnesses, I have nothing to say; except that most of them, both for and against the prosecution, were derived from the same class of persons, and that many of them were familiar with courts of justice. The worst feature of the whole matter is that the trial and verdict have really decided nothing, except the position of the defendants before the law; while, if there had been any power which could have ordered the removal of McMann to a London hospital, to be for a time under the observation of impartial and skilled physicians, the truth would have been ascertained beyond the possibility of cavil or dispute.

Wimpole-street.

A HALFPENNY SWALLOWED BY A CHILD, AND VOMITED FIVE WEEKS AFTERWARDS.

By R. T. JENKINS, L.R.C.P.E.,
Medical Officer to the Oxford Lying-in Institution.

A LITTLE boy, five years old, suffering from whooping-cough for seven or eight weeks, was under my care. On the afternoon of September 10 last he was lying on his belly upon a sofa, and laughing heartily, as he was playing with one of his relations. In his play, he seized a shawl which was on the sofa, put it to his mouth, and bit it. At the same moment he was attacked with a fit of spasmodic coughing; and a bronze halfpenny, which was observed to be upon the shawl, was suddenly drawn into his mouth, carried backwards during a forced inspiration, and sucked down unintentionally. Some check in the breathing came on, and the child turned blue in the face. The father passed his fingers to the back of the throat, and tried to extract the coin. He could feel the edge of it with the tip of his finger; but he was not able to lay hold of and remove it.

Dr. McFadden, who lived near, was called in, attended at once, and made an attempt to extract the coin with forceps. But the coin escaped from the instrument, and passed downwards. A piece of biscuit was afterwards taken by the child, and swallowed without difficulty. The next day was passed without anything to be remarked. The third day the child complained of pain, and was continually putting his hand to the pit of his stomach, as the place where he felt the pain. Vomiting after taking food and after the paroxysms of coughing became more frequent. The child lost flesh and became much weakened. He could only retain a very small portion of food at a time. Under my directions the mother examined carefully all the matter vomited, and also whatever passed the bowels.

On the morning of October 12, after breakfast, the child vomited the contents of his stomach. In the matter vomited the mother observed a solid substance, dark in colour, and thickly coated. She put it into water, and after much washing she found it to be the missing halfpenny. It was much corroded, but the distinctive features of the coin were visible on both sides.

The child has not suffered any further inconvenience.
Oxford.

PITYRIASIS.—Prof. Hardy recommends the following solution:—Bicarbonate of soda, 20 grammes; arseniate of soda, 10 centigrammes; and distilled water, 300 grammes. A spoonful is to be given before breakfast, and one before dinner, in the pityriasis rubra of gouty subjects, in disseminated pityriasis, and in pityriasis of the beard or hairy scalp—when the bicarbonate of soda given alone has proved inefficacious. For lymphatic subjects affected with obstinate pityriasis rubra of the armpits, groins, or neck, the arseniate of iron may be prescribed with good effect in doses of two or three centigrammes per diem. As a local application we may use ointments of oxide of zinc, and, later on, those of tar, of juniper—*huile de cade* (from a tenth to a twentieth), of calomel (from fifty to a hundred parts), or citron ointment mixed with ten parts of cold cream or lard.—*Union Méd.* January 21.

A FERTILE MULE.—A great zoological rarity is now on view at the Jardin d'Acclimatation, Paris, in the shape of a fertile mule. It is an African female mule, named Catharine. In 1874 this mule, together with a Barbary stallion (Caid) and their offspring (Constantine), was about to be sent to the Vienna Exhibition, when they were all three purchased for the Gardens in Paris. Since then Catharine has given birth to an offspring (Hippone), by a horse, in 1874; to two others (Salem and Othman), the sire being an ass, in 1875 and 1878; and, quite recently, she has produced a fifth (Kroumir), the issue of the same horse as her first two offspring. It is very interesting to compare together the members of his family, unique in origin. The fact of the mule being fertile positively disproves the Arab proverb, "When the mule produces offspring, women will become men, and men will become women." Salem and Othman are regularly used for the cars on the miniature tramway which unites Port Maillot to the Gardens.—*Boston Med. Jour.*, December 22, 1881.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

EAST LONDON HOSPITAL FOR CHILDREN.

DEFECTIVE DEVELOPMENTAL CONDITIONS AS SEEN PRINCIPALLY IN CHILDREN.

(Under the care of FRANCIS WARNER, M.D. Lond., M.R.C.P.)

(Concluded from page 91.)

GROUP V.—MISCELLANEOUS CASES.

Case 17.—Double Coloboma of Iris—No other Defect.

BELLA M., aged two years and a half. There was coloboma of the iris, in each eye, extending from the pupillary margin horizontally to the left margin. She sweated much; had never walked; was a little troubled with diarrhoea. Ears and heart normal.

Case 18.—Congenital Smallness of one Eye—No other Defect.

Charles H., aged twenty years, seen at the London Hospital. The eyebrows and orbits appeared alike on either side. The left eyeball was obviously much smaller than the right; the cornea was triangular in shape, and about one-third of an inch in diameter. The pupil distinctly reacted to light. He had perception of light with this eye, but could not count fingers.

Case 19.—Deformity of Right Ear and Temporal Bone—No other Defect—Rickets.

Matilda P., aged two years, presented the signs of rickets—beaded ribs; fontanelle very patent; centres of frontal bone very prominent; only three teeth cut. The child was very babyish; she could not talk, or even stand, and was somewhat emaciated. The left ear was well formed and of natural size; the right ear was markedly deformed—very small; in the vertical measurement an inch and a quarter, as against an inch and five-eighths on the left. The pinna was the only portion of the ear at all well-formed; the upper portion of the external ear was represented by a folded plate of cartilage and skin half an inch long. The opening of the meatus was small, very rudimentary, and situated behind the representative of the external ear. The mastoid cells appeared absent on the right side, and there was a marked depression where they should be. There was no throat-deformity, and no otorrhoea. The heart was normal. The mother appeared a healthy woman; she was twenty-five years of age, had been married four years; she had three children, all girls, of whom the patient was the second; the other two children were healthy.

Case 20.—Congenital Jaundice—Double Hydrocele.

Wm. B., aged five weeks, was born jaundiced; the motions had always been very pale, and the urine deeply coloured; the skin and conjunctivæ were deeply yellow. The liver appeared of normal size; the spleen was felt enlarged. The double hydrocele was tapped by Mr. R. W. Parker. The child attended as an out-patient about a month. No special change was noted: the jaundice continued very deep in colour, and became more greenish. The motions were always white, and caused much straining when they passed; they were not particularly offensive. The health was well maintained. The heart appeared normal. This was probably a case of congenital obstruction of the bile-duct and congenital hydrocele. The head was well-shapen (circumference 15.5 inches). He never had convulsions.

Case 21.—Ichthyosis—No other Deformity.

David W., aged four years, was brought very ill with whooping-cough, attended with epistaxis and vomiting. The skin was very harsh and dry, almost scaly over the back, and had been so from birth. Ears and heart were normal. A brother, five years old, was seen; his skin also presented a slight condition of ichthyosis.

Case 22.—Ichthyosis, moderate in Degree—No other Defect.

Charles D., aged three years, was brought to hospital on account of whooping-cough. He was a clumsy-looking, ill-bred boy, with signs of rickets in chest and legs. The skin was markedly harsh and dry, and his shirt always full of

scarf-skin. This had been noticed from birth. There was no goitre, no deformity; the heart was normal. There was no other case of skin-disease in the family. The whooping-cough ran a rather severe course.

Case 23.—Ichthyosis—Deformity of both Ears—Heart Healthy.

George L., aged nine years, presented well-marked general ichthyosis. The skin was harsh, inelastic, covered with scale-like accumulations of hardened epithelium. Facial expression was almost absent. The lower eyelids presented ectropion from contraction of the skin. The ears were markedly deformed; on either side the whole of the external ear was adherent to the adjacent scalp; hearing was perfect. The heart was normal, and his general intelligence was good.

The family history is important. The mother of this child and her sister married two brothers, who are their cousins. The mother's sister has a child who is said to be in the same condition as this patient. The boy's parents are healthy; they had six children before the patient, and have had three others since—all healthy. George was born at the eighth month. At birth the skin looked as if scalded.

Remarks (by Dr. Warner).—In seeking for explanation of the circumstances attendant upon and causing some of the special developmental conditions commonly found in children, it seems necessary, first, to arrange and examine cases of gross and obvious deformities, where the kind of deformities or ill-developments, and any co-existing defects and consequent deviations from normal function, may be easily observed and recorded. For this purpose I have abstracted from my case-books the notes of twenty-three cases, imbeciles and idiots being generally passed over. These are arranged as follows:—Defects of heart and hands, ears, nervous system, palate, and defects of heart not associated with other known defects; ichthyosis and defect of ears; congenital jaundice (obstruction of duct) and double hydrocele; defect of eyes; intra-uterine amputations. Of the twenty-three cases, twelve were males and ten females. Looking at these cases from the point of view indicated, the following points seem worthy of consideration:—The coexistence of deformities was not uncommon. This is seen in all the cases in Group I., also in Cases 14 and 20; while in Nos. 12 and 13 the head was also below the average size. The family history is noteworthy as giving indications of possible causation. In Cases 2, 6, 10, and 14 a feeble constitution in the family is indicated by miscarriages, many deaths, insanity with epilepsy in previous members of the families before the birth of the patients described. It also appears in some histories that the tendency to ill-development exhausted itself, the later members of the family appearing healthy. The secondary effects of the congenital defect are important. Defect of heart may lead to cyanosis, clubbed fingers, and perhaps low temperature; it is also said to lead to a low mental development. If the internal ears are faulty, dumbness may follow; obstruction of the common bile-duct must secondarily cause jaundice. Ichthyosis being attended with inaction of the skin, secondary bronchitis is common. Cleft palate may lead to atrophy from inanition, and a head below size may lead to general organic feebleness; but the former condition may be rectified, and not lead to atrophy; and in a former paper (*British Medical Journal*, October 30, 1880) I showed that small-headed children may, under proper care, develop a fairly sized brain. Here the developmental defect is, to some extent, removed. Of the eleven cases of heart-defect only one appears to have had convulsions—a symptom constantly inquired for. This case (No. 7) was cyanotic; there were, however, six cases of cyanosis without any history of convulsions.

It will probably be admitted that in the structure and general anatomy of the human body "the normal" is but the average as it is found; and so difficult is it in all the organised world to define and distinguish accurately between "the variation and the monster," either in the seedling plant which is different from its ancestors, or in the "genius" in the human species, that we must look carefully before we say that any specimen is monstrous or diseased; but in the gross cases above narrated the abnormality is obvious. Possibly, in these coexisting defects of development we may see some explanation of the accompaniment of vulgar faces and low minds, i.e., low development of the brain; when such samples are seen in a family it may

be well to look for the lines of causation in the descending scale of the development of the family. Among common defects may be enumerated defective or excessive ossification of the skull, excess of the epicanthic fold, defects of the eyeball, webbing of fingers and toes, weak abdominal rings, congenital phimosi, nævus, etc.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 11, 1882.

LORD COLERIDGE ON VIVISECTION.

THE *Fortnightly Review* for February contains two articles on "*The Ethics of Vivisection*"—one by Lord Coleridge, the other by Dr. W. B. Carpenter. The title we have quoted is that under which the Editor of the *Review* (we presume) has placed the two essays; but the special and more appropriate title which Lord Coleridge has given to what he has to say is, "*The Nineteenth-Century Defenders of Vivisection.*"

The article in question is a most able one. It is the case of the anti-vivisectionists, urged by a most skilful and powerful advocate. We know the old legal maxim, "No case, abuse plaintiff's attorney." Lord Coleridge is far too wise, and far too expert in the arts of the pleader, to allow himself to descend to vulgar abuse. There is throughout the essay an ostentatious moderation and profession of fairness, and we do not for one moment assert, or wish to imply, that the distinguished author has not honestly wished to be just and to arrive at right conclusions. But there is, at the same time, a want of sympathy with, of appreciation, and even of knowledge, of the methods and aims of physical science, that obviously unfits the writer from taking a just view of the necessity and advantages of experimental research. Joined to this, there is a tone of contempt, of dislike, of suspicion, towards workers in the field of physiology, not expressed indeed, but not less obvious. Emerson says that we judge men far more by what they do not say, than by what they do say; and this remark eminently applies to this essay. We do not find in it any reminder of the humanity, the self-sacrifice, the labour of the men against

whom Lord Coleridge writes ; any sense of the benefits that medical science has conferred upon humanity, or appreciation of the responsibilities with which medical men are entrusted ; and we do find an exaggerated impression everywhere given of that which is thought to tell against them.

Lord Coleridge writes because in the literature of the subject his name has been referred to. He states that he would in the abstract prefer regulation to prohibition; but practically he thinks proper regulation impossible, and therefore prohibition the only alternative. Then he refers to the evidence before the Royal Commission on Vivisection, which he speaks of as terrible, and says that to read it makes him sick. (If reading accounts of physiological experiment produces this result, what would be the effect of a day at Hurlingham?) The ignorance, the equivocation, in some cases the proved falsity, of some of the witnesses brought forward against vivisection does not seem to have struck Lord Coleridge. Sympathy for animals perhaps makes up for any amount of mendacity.

The present state of things Lord Coleridge states as follows:—"The claims of the vivisectors have meanwhile become so large, the tone they take is so peremptory, and the principles on which they base themselves are so alarming, and (I think) so immoral, that I have become reluctantly convinced it is only by the strongest law, by absolutely forbidding the practice itself, that the grave mischief which follows from holding parley with these claims can be stayed or destroyed." He goes on to say—we doubt not, with perfect sincerity, but, we are sure, with much self-deception—"I am not conscious of any distorting influence on my judgment; *I have no anti-scientific bias*; I read as far as I can a good deal on both sides, with a desire, I think sincere, to arrive at a sound conclusion."

The anti-scientific bias which the illustrious writer here dis-claims, comes out in the clearest manner two pages further on; and the passage is worth quoting at length, because it shows so clearly not only want of sympathy, but a want of comprehension of the methods, and of knowledge of the history of physical science, which is not peculiar to Lord Coleridge, but underlies the hostility that many highly educated, refined, and intelligent persons feel towards it "I must, however, be permitted to say how loose and vague are the notions of evidence which, as far as I know them, pervade the writings of men of science on this question. Sir James Paget . . . said (and I think truly said) that men of science often (not, of course, always) arrive at conclusions on evidence which a lawyer would hardly admit to be evidence at all in a question of disputed fact. No fair man, I think, can fail to be struck with the uncertainty . . . of the conclusions to which vivisection has conducted those who practise it. The conclusions are doubted, are disputed, are contradicted, by the vivisectioners themselves. So that it really is not experiment to verify or disprove theory, which one well-conducted and crucial experiment might do, but experiment *in vacuo*, experiment on the chance, experiment in pursuit of nothing in particular, but of anything which may turn up in the course of a hundred thousand vivisections, and during the course of a life devoted to them. This is the experiment for which liberty is claimed, and the unfettered dispute of which we are called very hard names for objecting to." The paragraph which precedes the one above quoted has reference to the utility of vivisection, and therefore we are not obliged to assume that Lord Coleridge considers knowledge as nothing, but we may take the phrase "anything which may turn up" to mean anything useful. We suppose that scarcely an experiment has ever been performed which did not add something to the knowledge of the operator, and through him, of the world: but we are quite

willing to admit that, as a description of the search for something of direct utility to man and animals, Lord Coleridge's description is perfectly accurate. It has been well said (by the late Dr. Latham) that to attempt to find a means of cure by directly looking for it, would be as absurd as the conduct of a man who should try to get rich by looking for a bag of money. He who wants to get rich must do it by carefully gathering and putting together every little sixpence, not storing them up, but using them wisely: he must often do things which seem to involve nothing but expenditure, and lay out his money in ways in which a return is not only not apparent, but most uncertain. Just so, the vivisector arrives at useful discoveries, not by looking directly for them, but by searching out any bit of knowledge which he sees his way to get; he will do many experiments which have no direct outcome, even to him, and which, to one not understanding the manner in which progress is made, seem quite unprofitable: and then, putting together knowledge gained in many ways, and from many quarters, a step in advance is achieved. The method pursued in law courts or ecclesiastical councils does not serve in every kind of investigation. The interrogation of nature is a different thing from the cross-examination of a witness: and a training in the latter method of eliciting (or rather obscuring) truth does not fit a man for the former.

Lord Coleridge does not deny the utility of vivisection; but he ingeniously insinuates that it is doubtful. "I have heard so much and so often of Mr. Spencer Wells's rabbits, that I will own to a suspicion that if the baked dogs, and mutilated cats, and gouged frogs, and nail-larded guinea-pigs, and brain-extracted monkeys, had resulted in anything worth hearing of, I should have heard of that too. But I do not say, and have never said, that vivisection is useless."

His position is, that "knowledge is unlawful knowledge if it is pursued by means which are immoral"; which of course everyone will agree to. Vivisection is immoral because everyone would admit that experiments should not be performed upon man; and animals are entitled to as much consideration as man: because there is an enormous disproportion between the amount of pain caused to animals by vivisection, and the utility therefrom. The necessity of vivisection, according to Lord Coleridge, is not admitted, its utility much exaggerated, and the positive evil engendered by it "frightful." To us it seems that he does not understand the methods of physiological and pathological research, and therefore cannot appreciate the results gained by them, or judge of their relative value; and that the impression on his mind as to the pain caused by vivisection is a greatly exaggerated one. He mentions a man, "almost the manliest man I ever came across, one of the best shots and finest riders in England," who could not give up sport, because it had become a second nature to him, but who laid down a set of rules for his shooting parties, which reduced pain to a minimum. We will venture to say that this gentleman probably caused more pain to animals in a season than all the vivisectors in the British Isles put together during the year, even before 1875. And for what? For his *amusement*!

We have said nothing about the curious sensibility which Lord Coleridge displays to the hard names which have been applied to those with whom he sympathises. If they are all as sensitive as he is, we can only say that they are better at using strong language than at taking it.

The article is chiefly to be lamented as a sign of the want of general scientific education, and of the hostility to science, so prevalent just now. It is a hostility based upon imperfect information. The public listens as readily and as confidently to the noisy assertions of those who, having neither character nor ability to achieve success by honest and thorough work, seek notoriety by appealing to popular pas-

sions, as it does to those whose knowledge, industry, and integrity have commanded the respect of their equals. It is lamentable that it should be so, but we fear that time alone will bring the cure. In days to come the present blind fury against vivisection will be viewed much as we now look at the indignation of the Holy Office against Galileo.

THE PROPOSED HORSE AMBULANCE SERVICE FOR THE METROPOLIS.

THE Duke of Cambridge last week presided at a meeting held at the Royal United Service Institution, to consider a proposal to organise a hospital and accident ambulance service for the metropolis. Amongst the large and influential gathering assembled were the treasurers, chairmen of committees, and other representatives of many of the metropolitan hospitals, Lord Templetown, Sir William Gull, the Chief Commissioner of Police, and Mr. T. Holmes, their chief surgeon, and several other members of the medical profession, including Dr. B. Howard, of New York. The proceedings were, of course, of a purely formal nature, that is, they were confined to the passing of a general resolution declaring that such an institution was, in the opinion of the meeting, desirable; and of the election of a committee, the names of which were, we believe, published, but which we were not fortunate enough to see, and which is intended to include representatives from each of the large hospitals, as well as some who will be able to represent the police force, and others. The Duke of Cambridge introduced the proceedings in a few words full of common sense, and was particularly anxious that the subject of the conveyance from place to place of persons suffering from contagious diseases should not be left out of consideration. This gave the cue, in some sort, to the remarks of Sir William Gull, who proposed the first resolution, as follows:—"That, in the opinion of this meeting, it is desirable to form a Hospital and Accident Ambulance Service for London." He suggested the omission of the words "hospital and accident," because this service would not be limited to the conveyance of persons to hospital. Mr. Buxton, the chairman of the London Hospital, gave expression to some remarks, in the course of his speech as seconder of this resolution, to which we can give our cordial assent, and which, indeed, in substance, we took the opportunity of pointing out in commenting upon the meeting held at the office of the St. John Association a week or two ago. We mean, that it will be useless to aim at having these ambulance arrangements at every hospital, but that in a great overgrown city like London, where the hospitals are not evenly distributed by any means, far more good will be attained if they are placed at police-stations, railway-stations, perhaps even large factories, and so on. Independently of the advantages of the latter plan, however, it will not do to lose sight of the fact that the funds of hospitals cannot be expected to run to the large expense which the other plan would entail. Of course, it might happen, as Sir Sydney Waterlow said, that if one hospital started such an ambulance the others would be obliged to follow suit—as, indeed, actually was the case in New York, where it was found that the Bellevue Hospital was receiving all the accidents of the city, and, accordingly, the others were obliged, in self-defence, to start similar arrangements. We hope that no such action with this object in view will be taken in London; but that if at any time the plan should commend itself to the citizens as essential, they will look the question fairly in the face, and make up their minds to have the support of it borne by the local rates.

We have not space to refer to all the speeches that were made, and must therefore be content with saying that Dr. Howard briefly described the main points in the construc-

tion of the ambulances, the full details of which we published last week; and Mr. T. Holmes, from his long experience as Surgeon-General of the Police Force, drew attention to some of the practical difficulties which, owing to the magnitude of the metropolis and the great number of accidents continually occurring, would have to be met. He further assured the meeting of the desire of the Chief Commissioner of Police, and of those working with him, to render whatever help they could. The motion was duly carried, as was also a proposition of Mr. J. H. Crossman for the nomination of a representative committee.

Sir Edward Hay Currie mentioned that a complete ambulance has been at work for some time in the East-end for the conveyance of infectious cases.

We think it was unfortunate that none of the authorities of the Association of St. John were seen upon the platform, seeing that this society had been, in a way, the first to move in the matter. Sir Edward Lechmere and his colleagues occupied some benches in the body of the meeting; in the course of his remarks he said that he and the St. John Association would be willing, and indeed pleased, to co-operate in any way they could with the movement; it is therefore to be regretted that neither he nor Major Duncan thought they could spare sufficient time to allow them to serve on the committee. We hope that one or other of these gentlemen or one of their colleagues will allow their names to be added to the list. We fancied, we hope wrongly, that some gentlemen were feeling, perhaps ever so slightly, something of the unpleasant sensation of having been left out in the cold, and there was perhaps a little too much of the London Hospital about all the proceedings. It is much to be hoped that all who are interested in the subject will work heartily together; there is, we believe, a good work to be done, but unless all pull in the same direction it is to be feared that the present movement will end in failure.

THE LATEST SHEFFIELD POISONING CASE.

A TRIAL has just been concluded at Leeds, before Mr. Justice Cave, which has already given rise to a good deal of discussion, and probably may yet occasion still more, inasmuch as it seems to strike at the roots of one of the most cherished features of English law. The facts of the case were simple enough. An elderly man, of no mean attainments, for he had introduced one of the most valued improvements in Sheffield manufactures—that, namely, of etching on steel,—had taken as his housekeeper the person who had been servant during his wife's lifetime. She remained with him for some years; but a younger woman, the accused, began to frequent the house before she ultimately left. After leaving, the old housekeeper continued on good terms with her former master, who had made a will in her favour; but this did not seem to suit the younger woman, who had by this time been installed as housekeeper, and who had an eye on the old man as well as his money. A good deal of the fondling and quarrelling which are not unusual between lovers of all ages seems to have gone on between the old man and the young woman. But she seemed to have got him well in hand, for, though he accused her of pawning his property, something like a promise of marriage, or a reasonable expectation of it, had somehow been recognised as existing between them, and the old man had apparently said he would alter his will in favour of the new housekeeper. Last autumn, the former housekeeper having received a present of some vegetables, sent a portion of them to Mr. Skinner, the man in question, by whom they were received, and handed over to Kate Dover, the accused. It does not appear that they were used

immediately; but one evening soon after, whilst her master was absent at the public-house, Dover, after applying to one man, who was absent, found another, who somewhat unwillingly accompanied her as a witness to a chemist's shop, where she procured a quantity of white arsenic, on the pretence that it was required for colouring some artificial flowers. Next day a fowl was sent for and cooked, and Dover and her master sat down to dine on it. With it had been prepared two sets of onion stuffing (the onions being taken from the present of vegetables sent to Mr. Skinner)—one inside the fowl, the other separately,—but it was not shown clearly which was used by either of the two. Whilst at dinner, Dover began to complain of illness, and remarked that "she" (meaning the former housekeeper) "had done for them now." As yet the man had shown no signs of poisoning, but they speedily appeared, and continued till the time of his death—that evening. Dover was, apparently, alarmed, sent for some tincture of lobelia—a potent remedy for all things in the eyes of herbalists, who abound in Sheffield—and then herself ran for a medical man, who speedily came and administered emetics. After this, for the first time, Dover was sick. The matters she vomited contained no arsenic, but those that Skinner brought up contained much, and it was found copiously in his body after death, as well as in one of the portions of stuffing; whilst there was none in the other. It was reasonable to suppose, and in point of fact was admitted, that one portion of the stuffing was poisoned for the master's benefit, whilst the housekeeper helped herself to the other. The fact that she complained of illness (having eaten nothing to cause it) before her master, showed that she expected something to happen, and knew what that something would be. She burned some papers, and handed a white paper packet over to her mother, to be taken away after the illness commenced, showing she had something to conceal. She was willing enough to point out everything which did not contain arsenic, but said nothing about the poison she had purchased. All this seems clear enough; and most people would say that, tried on a charge of poisoning founded on such evidence, there could only be one or other of two verdicts—guilty of murder, or not guilty of administering the poison wilfully. Nevertheless, impressed, apparently, by the counsel for the defence, and by the summing-up of the judge, the jury returned a verdict of guilty of manslaughter, which was accepted. Such a finding reminds one of the popular story of curious verdicts such as—"Not guilty, but don't do it again,"—"Not guilty of murder, but guilty of horse-stealing,"—and the like. The plea advanced by the counsel for the defendant, and apparently accepted by the judge without question, was simply this: that the woman intended to give enough arsenic to frighten Skinner, to persuade him it had come through the onions sent by the former housekeeper, and thus effectually oust her from his good graces. That such a plea, with absolutely nothing to support it, could have been accepted and acted upon in such a case seems most extraordinary. Everybody knows that arsenic is a dangerous poison. The very precautions the woman took showed that she was fully aware of it; and the reckless administration of such a drug for the avowed purpose of causing bodily sickness and mental alarm is in itself a crime of no small magnitude. Heretofore it has been the invariable practice to take this recklessness of consequences as equivalent to evil intent; but here that salutary plan has been departed from. The case is most, however, to be regretted as a precedent, though the very fact of its occurrence, and the comments which have followed, may probably effectually prevent its happening again. Few can greatly regret that this wretched woman has escaped the gallows. To many, penal servitude for life would be far more intolerable than its sudden extinction.



THE WEEK.

TOPICS OF THE DAY.

As every effort to check the spread of infectious disease is worthy of consideration, it will not be out of place to notice the meeting recently convened by Canon Farrar, at his residence, to discuss this question. There was a numerous attendance, including many of the district clergy, who had been invited by the St. George's, Hanover-square, and Westminster Committee of the Charity Organisation Society to hear Mrs. Johnstone, of the Hastings Sanitary Aid Association, explain the organisation which had been formed in the towns of Hastings and St. Leonards to combat infectious diseases. Mrs. Johnstone, in the course of a long address, pointed out that this Association acted in conjunction with the local agencies for dealing with poverty and sickness, as well as with the sanitary authorities. The Association had women instructors, who, when an infectious case broke out, visited the house, and gave instructions as to the course to be adopted—in fact, instructed the heads of the family in all the steps necessary to be taken; and the relief given to poor families by the Association depended upon the manner in which these instructions were carried out. Isolation was practised in the treatment of cases at home, and where there were in a family bread-winners who would otherwise have to be in contact with contagion, lodgings apart were obtained for them. Further, convalescents were kept from mixing with the general population, and, if children, were debarred from attending school until all danger was past; whilst sanitary action was insisted upon in the shape of disinfection of the house and clothing, etc. The principles upon which the Association acted were indeed so simple that there could be no objection to their being applied in the case of any town or district. Sir Henry Cole approved of the objects and work of the Association, and urged that by establishing a "guild of health" in every parish, the spread of contagion might to some extent be prevented. At the close of the proceedings it was stated that it is proposed to introduce a Sanitary Aid Association into Westminster on the Hastings model.

We have to record yet another case in which a member of the medical profession has brought himself into opposition with the law, without any criminal intention, but simply through not adhering strictly to the prescribed course laid down for guidance. A general practitioner was summoned last week to the Lambeth Police-court, at the instance of the Lambeth Guardians, and under the direction of the Registrar-General, "for having unlawfully and wilfully made a false statement as to a child born alive having been still-born, and having given a false certificate under and for the purposes of the Births and Deaths Registration Act of 1874." The evidence showed that on December 16 last a certain woman was confined of a female child, the defendant being in attendance; that the child was unquestionably born alive, and lived many hours. The defendant, however, gave a certificate that he had delivered the woman of a stillborn child; and an undertaker proved burying the infant as stillborn under this certificate. In his defence, the medical man said he had not the slightest idea when writing the certificate that he was doing an illegal or unusual act. It was, in fact, good nature on his part in order to save the parents the expense of an ordinary burial; for a sovereign or two to people of this class was a great consideration. He had been in practice twenty-one years, and had attended some 3000 confinements; and he admitted, according to the reports in the daily papers, that he had occasionally given such certificates when the people were poor, and there was only a presumption that a child had

really been born alive. Some very strange statements were credited to him by the reporters, but none more strange than his confession of entire ignorance of one of the most important provisions of the Births and Deaths Registration Act of 1874. The magistrate, in giving his decision, trusted that such a practice would not be followed in future, otherwise serious consequences might result, and crime be committed. He was ready to believe the defendant had been actuated by kind motives, but it was essential for the public good that these proceedings should have been taken. He was bound to hold that the defendant had acted in contravention of the Act, but he considered it was not a case for a heavy penalty, though such might undoubtedly be imposed. He fined the defendant 20s. and costs. The defendant was most leniently treated. He could not but have known that his certificate was false, and an offence against morality and honour. His defence was as bad as his offence.

It appears that small-pox, which has been for so long a time prevalent in the metropolis, now shows a tendency to spread into the Midland Counties. There have been cases at Bedford, Northampton, and Huntingdon, and within the last few days a serious outbreak is reported to have occurred at Ampthill. In the latter case the importation of the disease is said to be clearly traceable to a tramp, who, in an advanced stage of the complaint, spent several hours begging through the town. It is satisfactory to note that the several sanitary authorities have aroused themselves to the urgency of the circumstances, and are taking active measures to isolate each case as it occurs, and that in the districts affected the outbreak has led to a wholesome desire on the part of the adult population to seek safety in revaccination.

The annual meeting of the governors of the Ventnor Consumption Hospital was recently held at the London offices, Craven-street, Strand, under the presidency of Lord Lamington. The report of the Board of Management stated that the number of in-patients treated during the past year was 555, the majority of whom had greatly improved, many being enabled to resume their usual occupations on their return to their homes: the greater number came from London. The number of deaths had been twenty-four, or 4.3 per cent., owing to some unsuitable cases in an advanced stage of consumption being sent to Ventnor. The receipts had amounted to £7342, and the expenditure to £7351. It will be remembered that the institution is situated in the most sheltered spot in England—viz., the undercliff of the Isle of Wight,—and every patient has a separate bedroom facing the south and overlooking the sea.

A motion was recently made, before Mr. Justice Fry, to restrain the Local Government Board, till the trial of the action, from carrying out the dismissal of Dr. Donahoo from his post of Medical Officer of the Fifth District of St. Saviour's, Southwark. Dr. Donahoo claims to have a freehold in his office under statutory regulations made by the Poor-law Board, the predecessors of the Local Government Board, in 1857, and to hold his office *dum bene se generit*. He had filed affidavits to show that the inquiry which was made into his conduct, and which led to his dismissal, was unfairly conducted, and that it was closed without his being able to call rebutting evidence. Dr. Donahoo was invited to tender his resignation, and not doing so, a letter was sent to him from the Local Government Board, informing him that unless he resigned within seven days he would be removed from his office. The present motion was made to restrain the department from so doing. Mr. Justice Fry, without calling on counsel for the defendants, said, in his opinion, the office of the plaintiff was only held *durante*

placito of the defendants, and his dismissal was within their absolute discretion. But, he added, there was another ground on which he should have refused the motion—namely, that it would be highly inconvenient, pending the settlement of the dispute, to force a medical officer upon his employers.

A deputation from the Plumstead district recently visited Aylesbury for the purpose of inspecting the sewage works in operation there, when samples of the sewage matter, both purified and unpurified, were taken. Fish were found to be swimming in the purified sewage, which, as it entered a neighbouring brook, was seen to be much clearer than the water of the brook itself. The manure obtained from the works sells at £3 10s. per ton, and the subsidy given by the town authorities to the works is £200 a year. The Secretary expressed himself as perfectly confident that in future they could work even more economically and profitably, and that the question of the ultimate purification of the Thames was now well within grasp. The prediction is, to say the least of it, a bold one, but having regard to the unsatisfactory condition of the river at the present time, it would be well to attempt any experiment possessing a chance of eventual success.

According to the monthly report of the Registrar-General for Scotland for December last, the number of births registered in the eight principal towns during that period was 3508, and the number of deaths 2315. The latter figures show a decrease of 686 on the numbers for December during the past ten years, allowing for increase of population. The mortality was at the rate of 20 deaths per thousand persons in Edinburgh, 22 in Dundee and in Aberdeen, 24 in Glasgow, in Paisley, and in Leith, 25 in Greenock, and 27 in Perth. Of the 2315 deaths, 893, or 39 per cent., were those of children under five years of age. The zymotic class of diseases proved fatal to 340 persons, and constituted 14·7 per cent. of the whole mortality. This rate was, however, exceeded in Greenock, and also in Glasgow, where measles, scarlet fever, and whooping-cough prevailed. Fever caused 38 deaths, and of these 10 were tabulated as typhus, 25 as enteric, and 3 as simple continued fever. Whooping-cough caused 65 deaths, measles 58, diphtheria 34, croup 25, and diarrhoea 14. Violent causes proved fatal in 86 cases, of which 4 were suicides. Two males and two females were aged ninety years and upwards, the eldest of whom was a widow ninety-six years of age.

At a recent meeting of the St. Pancras Vestry it was stated that there had been an outbreak of scarlet fever in the Euston-road and Tottenham-court-road district, and the Chairman of the Sanitary Committee explained that the disease prevailed in the southern part of St. Pancras, nearest to St. Giles's, extending to Marylebone. It was further announced that the fever had been traced to one source of milk-supply, and Gower-street and Russell-square had both suffered. The Sanitary Committee were of opinion that the Vestry ought to ask the Local Government Board to make an inquiry as to the state of the farm from which the milk had been issued. The milk-carrier had had the disease, also the servants at the dairy, and sixteen cases had already occurred in St. Pancras, and thirty in St. Giles's. As all the cases had been traced to one source, it was resolved that the Local Government Board be applied to, to institute an inquiry into the condition of the farm from which the milk was sent out.

THE OPENING OF PARLIAMENT.

OUR readers will look to receive from us, on the reassembling of our legislators for another session, the most reliable information concerning the prospects of the introduction of any measures of special interest to the medical profession.

The marked absence during recent years of efforts for the improvement of the existing laws for sanitary and municipal government in respect of public health renders it highly desirable at the present time that some effort should be made in this direction. We are supposed to be rejoicing in the stability of our colonial dependencies and the harmony of our relations with foreign powers. During such a time of assumed peace it is not surprising that the Government should resolve to devote their best energies to the carrying through of measures for improving the machinery of fiscal and municipal self-government and other domestic and social matters which concern the well-being of our nation, our commerce, and our individual rights. But we have looked in vain for a suggestion even of an effort to meet the long-felt need of consolidating the existing sanitary laws. There are so many conflicting authorities concerned in formulating by-laws in the interests of public health, and for supervising drainage and building operations, that it is quite time some effort was made to simplify and harmonise the work required to be done by our Local Government Board and the sanitary officials. Apparently, neither the Ministry nor the Local Government Board intend introducing a measure for the compulsory registering of the existence of infectious disease in any house or locality, in order to facilitate the adoption of early and proper means for arresting the spread to neighbouring houses. Legislation for the purpose of amending and reforming the Acts by which the Metropolitan Asylums Board exists and acts must await the report of the Royal Commission on Hospitals for Infectious Diseases; and similarly, legislation for the medical profession cannot be again attempted till the report of the Royal Commission on the Medical Acts has been delivered, read, and digested. The only definite proposals embodied in the Queen's Speech which in any way affect the interests of the profession are those relating to the conservancy of rivers from pollution, etc., and the prevention of floods, and also the reform in the municipal government of towns.

THE METROPOLITAN ASYLUMS BOARD.

At the meeting of the Metropolitan Asylums Board, held on Saturday last, the time of the Managers was again largely occupied with the consideration of complaints and remonstrances excited by the results of the injunctions obtained against the use of the Hampstead and Fulham Small-pox Hospitals. A deputation from the district of St. Giles's, Camberwell (a district lying between London and Deptford), presented a memorial respecting the Deptford Small-pox Hospital. The memorialists recognised the difficulties of the Managers, and did not wish to embarrass their action; but they desired to strongly urge that the Hospital is a centre of contagion, and that immediate steps should be taken to restrict its employment to small-pox patients from the south side of the Thames. The Lambeth Board of Guardians wrote to the Managers, protesting against the use of the Asylums at Deptford and Stockwell for the small-pox and fever patients of the whole, or nearly the whole, metropolis. They saw with the utmost indignation, these eloquent Guardians said, South Lambeth made the receptacle for dangerous and loathsome diseases from all districts in London, to the terror and pecuniary loss of the inhabitants; and they hoped steps would be immediately taken to put an end to a state of things so manifestly wrong and unjust. The Managers directed their Clerk to convey to the Lambeth Guardians an expression of the sympathy of the Asylums Board with them; and to intimate to them that fever and small-pox patients must be taken in somewhere, and consequently, as the Hampstead and Fulham Hospitals are closed, the Managers cannot help sending them

to Stockwell, Homerton, and Deptford. Nothing was said, however, about any effort to remedy this state of things. It was stated to the Board that a prisoner from the Coldbath-fields Prison had been received into the Deptford Small-pox Hospital, and one of the Managers strongly objected to this. The Board of Guardians, he said, were constantly finding fault with the Managers about the cost of these patients; now and again, he pathetically added, even the Local Government Board communicated with them on the subject. And now a great Government department had broke the law in sending a man under their charge and keeping to a Poor-law Asylum! He moved to forward a statement of the case to the Home Office; but as the matter had not been mentioned in the report of the Deptford Hospital Committee, it was referred to the Committee for report. The totals of the returns from the small-pox hospitals for the fortnight showed that 163 patients had been admitted, 21 had died, and 92 had been discharged, leaving under treatment 485, including 72 convalescents at Darenth, and 146 beds available. The statement shows a decrease of 11 remaining under treatment as compared with the totals of the previous fortnight. The fever returns showed a total of 383 patients remaining under treatment; of which 233 were scarlet fever cases, 118 enteric fever, and 32 typhus: a total of 5 less than the total of the previous fortnightly returns.

REMOVAL OF A CYST OF THE PANCREAS.

ABDOMINAL surgery continues to advance. Even the deep seclusion and important surroundings of the pancreas have not been enough to protect it from the surgeon. Dr. Bozeman recently exhibited before the New York Pathological Society a cyst of the pancreas, which he had removed. The cyst was of great size, weighing twenty pounds and a half. It was diagnosed as an ovarian cyst, Drs. Richardson, Thomas, and Emmett concurring in the diagnosis; and in this belief the operation was undertaken. When the abdomen had been opened and the attachments of the cyst explored, it was found to grow from the tail of the pancreas at the junction of the outer third with the inner two-thirds of the organ. The pedicle was about three-quarters of an inch both in length and diameter, and contained very large vessels. It was transfixed and tied in the manner usual for the pedicles of ovarian cysts. The patient recovered, and left the hospital, cured, on the thirty-eighth day after the operation. We beg to offer our hearty congratulations to Dr. Bozeman on this, the latest triumph of abdominal surgery, which has thus fallen to his lot to achieve.

THE PARIS WEEKLY RETURN.

THE number of deaths for the fourth week of 1882, terminating January 17, was 1265 (646 males and 619 females), and among these there were from typhoid fever 35, small-pox 15, measles 13, scarlatina 2, pertussis 6, diphtheria and croup 74, erysipelas 7, and puerperal infections 10. There were also 43 deaths from tubercular and acute meningitis, 195 from phthisis, 58 from acute bronchitis, 118 from pneumonia, 97 from infantile athrepsia (26 of the infants having been wholly or partially suckled), 104 from diseases of the cerebro-spinal system, and 27 violent deaths (19 males and 8 females). The number of deaths registered is larger than for any of the three prior weeks, there having been an increase in those from typhoid of the week before, and a large increase from diphtheria (74 in place of 50). The births for the week amounted to 1353, viz., 693 males (491 legitimate and 202 illegitimate) and 660 females (480 legitimate and 180 illegitimate): 86 infants were born dead or died within twenty-four hours, viz., 39 males (30 legitimate and 9 illegitimate) and 47 females (32 legitimate and 15 illegitimate).

SCROFULA AND TUBERCULOSIS.

M. GRANCHER recently made to the Société Médicale des Hôpitaux of Paris an interesting communication on the above subject. The following are his general conclusions:— 1. Tubercle is a fibro-caseous neoplasm, the development of which takes place in successive stages, during a longer or shorter period; this complete evolution may be accomplished in a few months, or it may last throughout the whole of life. It may, however, be arrested during the earlier stages, and never get beyond them. 2. Pathological anatomy and experimental pathology are to-day agreed to include under the term tuberculosis the greater number of affections called scrofulous, as *local* tuberculoses. 3. Lupus, and superficial inflammations of skin and mucus membranes, the last resort of those who persist in regarding scrofula and tuberculosis as distinct, will probably be included in the same order in due process of time. 4. The necessities of practical medicine, which, after all, must first be reckoned with, do not permit all tubercular affections to be confounded together; on this account it is convenient to retain the word "scrofula" for those tubercular affections which are very slight and generally curable.

ARMY MEDICAL SCHOOL.

THE forty-third session of the Army Medical School was brought to a close on Monday, the 6th inst., when the prizes were delivered by H.R.H. the Duke of Cambridge, the Field-Marshal Commanding in Chief. The session was attended by twenty-three surgeons on probation for the Army Medical Department, and ten for the Indian Medical Service. The Herbert Prize, the highest honour in the School, was taken by Mr. L. T. Young, Indian Medical Service, who also took the Parkes Memorial bronze medal for hygiene, and the second Martin Memorial (silver) medal for military medicine. Mr. N. M. Reid, A.M.D., gained the Martin Memorial gold medal for military medicine; Mr. J. B. Gibbons (Indian) gained the first Montefiore Prize, and Mr. F. J. Jencken, A.M.D., the second, for military surgery; and Mr. G. J. Shand the prize given by Professor Aitken for pathology. The Montefiore Prizes have just been founded by the munificence of Mr. Nathaniel Montefiore, F.R.C.S. Eng., who has funded for the purpose a sum of £2000, besides defraying the cost of a medal die. It is intended to give a bronze medal and twenty guineas as the first prize, and a collection of books as the second. The medal (which is being prepared by M. Alphonse Dubois, of Paris) is not yet completed, but the plaster model was exhibited on the occasion, and much approved of. It has on the principal side a picture representing a surgeon on the field of battle, giving first assistance to the wounded, and on the reverse, the name and arms of the founder. His Royal Highness, in presenting the prizes, expressed the pleasure he felt in coming to Netley on such an occasion, and spoke with high commendation of the way in which the Medical Department had always discharged its duty, referring pointedly to the devoted and gallant conduct of its representatives in Afghanistan and South Africa, and during the late severe epidemic of yellow fever at Barbadoes. He also addressed a few words of encouragement and counsel to those who were now about to enter the public Services. His Royal Highness was accompanied by Colonel Bateson, and there were also present their Serene Highnesses the Prince and Princess of Saxe-Weimar and the military staff of Portsmouth garrison, Surgeon-General Shelton, the staff of the Royal Victoria Hospital and the Army Medical School, and several visitors. Sir William Muir, Director-General A.M.D., was unfortunately prevented from being present. After lunch at the Medical Department mess, the illustrious visitors left by the afternoon train.

THE ARMY MEDICAL DEPARTMENT.

THE following names are those of the Surgeons on probation in the Medical Department of the British Army who were successful at both the London and Netley examinations. The final positions of these gentlemen are not affected by the marks gained at Netley; and the marks in the subjoined list are the result of the London examination only :—

	Marks.		Marks.
N. M. Reid... ..	2,390	R. J. Fayle... ..	1,971
W. H. P. Lewis	2,325	J. W. Jerome	1,920
W. Dick	2,293	W. W. Pike	1,875
F. J. Jencken	2,141	M. E. Fitzgerald	1,870
F. H. Treherne... ..	2,105	L. H. Truefitt	1,870
S. F. Loughheed... ..	2,100	J. M. Irwin	1,855
J. C. Haslett	2,075	P. J. Nealon	1,850
H. J. Barratt	2,065	E. O. Wight	1,840
H. E. R. James... ..	2,025	W. A. Morris	1,825
H. O. Trevor	1,990	F. H. M. Burton	1,810
A. F. Russell	1,985	J. Heath	1,805
C. E. Nichol ... ..	...	...	1,805 marks.

The gentleman whose name appears first in this list gained the Martin Memorial Gold Medal; and the fourth gained the Montefiore Second Prize—viz., four books on Military Surgery.

The following are, we understand, the marks gained by the same gentlemen at the Netley examination. It will be observed that when the two sets are added together the Army Medical Department are not much behind their brethren of the Indian Service :—

	Marks.		Marks.
N. M. Reid	2,720	H. O. Trevor	2,000
W. Dick	2,505	R. J. Fayle... ..	1,991
H. J. Barratt	2,300	W. W. Pike	1,945
F. J. Jeneken	2,290	H. E. R. James... ..	1,940
A. F. Russell	2,270	J. W. Jerome	1,930
S. F. Loughheed... ..	2,235	J. Heath	1,850
W. H. P. Lewis	2,125	E. O. Wight	1,830
J. C. Haslett	2,090	W. A. Morris	1,830
M. E. Fitzgerald	2,075	J. M. Irwin	1,810
F. H. Treherne... ..	2,025	L. H. Truefitt	1,800
F. H. M. Burton	2,021	P. J. Nealon	1,800
C. E. Nichol ... ..	...	...	1,700 marks.

THE INDIAN ARMY MEDICAL SERVICE.

THE following is the list of Surgeons on probation in Her Majesty's Indian Medical Service who were successful at both the London and Netley examinations. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the list which follows :—

	Marks.		Marks.
L. T. Young	5,317	R. B. Roe	4,485
J. B. Gibbons	5,305	John Smyth	4,400
G. J. Shand	5,010	H. Greany... ..	4,090
D. St. J. Grant... ..	4,825	E. P. Youngerman	3,980
D. G. Crawford	4,640	J. Kernan	3,890

The gentleman whose name appears first in this list gained the Herbert Prize, the Martin Memorial Silver Medal, and the Parkes Memorial Bronze Medal; the second, the Montefiore Scholarship and Bronze Medal; and the third, the Prize in Pathology.

PREVENTION OF FIRES IN HOSPITALS.

IN consequence of the occurrence of the dreadful fire in the Ring Theatre, the *Wiener Med. Woch.* states that a most careful inspection of the three large hospitals at Vienna has been carried into effect, and various improvements for the prevention and extinction of fires determined upon. Surely this is as important a matter with ourselves, also, as is the inspection of theatres now going on.

ADDISON'S DISEASE.

AN interesting contribution to the pathology of Addison's disease was brought by Dr. Goodhart before the last meeting of the Pathological Society, and gave rise to a still more interesting discussion. The cases briefly consisted in atrophy or complete disappearance of the supra-renal capsules, associated with all the clinical features of Addison's disease in a marked degree. It would appear, therefore, that the changes in the capsules which Addison and all subsequent writers have considered essential to the disease may, after all, be only one of several conditions capable of giving rise to this group of symptoms. Many facts were brought forward in support of this opinion. Dr. Goodhart himself was of opinion that such cases as these strongly suggested the view that changes in the abdominal sympathetic were the real source of the symptoms—a view which was traversed by Dr. Pye-Smith, who, after pointing out that the adrenals were obsolete organs in adult life, the removal or destruction of which in animals produced no effect, warned his hearers against the acceptance of this neurotic theory, on the ground of its extremely simple and seductive nature. He supplemented this by pointing out that pigmentation of the skin was very common, and that there was neither pathological nor physiological analogy in support of melasma being due to nerve-changes. Dr. Coupland was hardly prepared to accept Dr. Pye-Smith's views, and pointed out the striking analogy presented by the vomiting and pigmentation of pregnancy in support of disorder or implication of the abdominal sympathetic. He did not think that structural changes need necessarily be found in the nerve-ganglia themselves, although he had met with one notable example, where fibrosis with atrophy of cells existed. He expressed his belief that the changes in the supra-renal capsules were of the nature of a localised tuberculosis, which might take place without any symptoms of Addison's disease. Dr. C. Creighton, in regard to the function of these bodies, referred to the researches which had shown that the blood issuing from the capsules gave chemical reactions different from those which were obtained from blood entering them, and argued that changes, such as atrophy or caseation, which practically cut off the blood-supply, might lead to such alteration in the blood as would bring on pigmentation, while cancerous changes, which increased the circulation through the organs, would have no such effect. Finally, Dr. Fowler referred to a case of lymphadenoma in which the abdominal sympathetic was largely invaded, where the capsules were healthy, and in which all the symptoms of Addison's disease were present.

LONDON HOSPITAL STUDENTS' CLUB.

THE building which has lately been erected in the Hospital grounds for the accommodation of the students of London Hospital was formally opened on January 24 by Mr. W. J. Thompson (the chairman of the College Board) in the presence of Sir A. Rose Robinson, Dr. Andrew Clark, Dr. Langdon Down, Mr. J. H. Buxton, and of several members of the Committee and staff. There was a large attendance of students, and the proceedings were of an enthusiastic description. The chairman briefly traced the circumstances under which the Club had been founded, and said that the number of students had so much increased that the want of accommodation had become more and more felt. The building itself had been erected at the expense of the College staff and the members of the House Committee, while the money required to purchase the fittings had been lent by a member of the staff at a low rate of interest and at a very slow rate of repayment. The management of the Club had been left in the hands of a Committee composed of four members of the College Board, and two of the members

of the Club elected by the other members; Mr. Munro Scott (Warden of the College) having very kindly undertaken the duties of hon. sec. The rules had been approved by the members, and the accounts would be kept by the Committee. In the event of there being any surplus it was intended that the tariff should be at once reduced, so that members might have the full benefit of the Club in every shape and form. He hoped that all the students, members of the staff, and House Committee would join the Club, which had been started under such favourable circumstances. Dr. Andrew Clark spoke in terms of high commendation of the objects of the Club, and expressed the hope that the establishment of a residential college for the London Hospital would be the next move in the right direction. Dr. Clark also referred to the necessary qualifications for success in life as a medical practitioner, these being, in his opinion, health, a just knowledge of the medical art, singleness of purpose, and self-denial. The meeting was also addressed by Mr. J. H. Buxton, Mr. Adams, Mr. Treves, Dr. S. Mackenzie, and Mr. Munro Scott. The building, which stands in the grounds of the London Hospital, is built of corrugated iron, and, though not handsome in external appearance, is most commodious. The dining-saloon is 50 ft. long by 20 ft., and tables are arranged for sixty to seventy students to dine at the same time, while there is also a large bar for luncheons, sandwiches, etc. We are glad to hear that the Club is thoroughly appreciated, about one hundred and eighty students having already joined, and that it promises to be a decided success.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

THE following is a list of Fellows recommended by the Council to be appointed to the offices named below, for election on Wednesday, February 15, at a meeting to be held at the Association's rooms in Chandos-street, W., at 8.30 p.m.:—*President*: Samuel Cartwright. *Vice-Presidents*: J. A. Baker, Thomas Edgelow, Francis Brodie Imlach, S. J. A. Salter, F.R.S.; John Smith, M.D., F.R.S. (Edinburgh). *Treasurer*: S. Hamilton Cartwright. *Hon. Secretary*: J. Hamilton Craigie. *Council*: Edward Bartlett, T. W. W. Fay (Liverpool), F. Fox, Peter Orphoot, M.D. (Edinburgh), W. G. Ranger, Augustus Winterbottom.

A NEW CONVALESCENT HOME.

WE learn, from a printed appeal for help which has come into our hands, that Queen Charlotte's Lying-in Hospital is to have a new Convalescent Home for its own special and sole use. Convalescent homes for poor lying-in women are greatly needed, as the patients in lying-in hospitals are discharged as early as possible, and too often before they are at all able to work. We are, therefore, very ready to welcome any well-managed home of this kind. But some of the statements made in the appeal "for help towards the establishment and maintenance of a small home, which is about to be opened at Kilburn in connexion with Queen Charlotte's Lying-in Hospital," are rather surprising. After describing the character, etc., of those who are to be helped, the appeal proceeds:—"The convalescent homes are closed to these women on account of their infants, and at present there is no provision whatever made for such cases in London. A temporary home in connexion with Queen Charlotte's Hospital is urgently needed. The Committee of Management of the Hospital have long felt the want of such a home." Would it surprise the lady who issues this appeal, or the Committee of Management and staff of Queen Charlotte's Hospital, to learn that for fourteen years there has existed, and still exists, in Crawford-street, a "Temporary Home" in connexion with Queen Charlotte's

Hospital, for the purpose of affording shelter and protection to those women who have in a single instance deviated from the path of virtue, and who find themselves without home or friends, in weakened health, and with impaired energy (the very class for whom the proposed new convalescent home is mainly intended); and that through this Home have passed more than a thousand poor women, all, we believe, from Queen Charlotte's Hospital? We have now before us the report of this Home for 1879-80, and find that in that year sixty-seven women and thirty-three children (an unusually small number) had been received into the Home; and we observe the valuable little institution had been carried on with but very little aid from the public. The management of Queen Charlotte's Hospital may have desired a larger convalescent home, and one in some respects under their control; but we should feel more confidence as to the good working and prosperous future of the new charity, had not past benefits of the kind been not merely ignored, but actually denied.

THE PARIS FACULTY OF MEDICINE.

THERE is nobody equal to your advanced Radical when invested with power for a stroke of despotism. Prof. Paul Bert, a few hours before he resigned his turbulent post of Minister of Public Instruction, issued a decree which the Paris Faculty of Medicine regards as insulting, and which is certainly unprecedented. On the exchange made by Prof. Charcot of his Chair of Pathological Anatomy for the new Chair of Neurology, M. Hayem put in a claim to be allowed to "permute" his Chair of Therapeutics for the vacant Chair of Pathological Anatomy. No one disputed his fitness for this latter post, or denied that it was more suited to his line of study and to his acquisitions than the one which he now holds; but a large number of the professors object to this plan of "permutation" of chairs altogether as injurious to the efficiency of the Faculty, and serving only for settling down into their proper places the posts which ought to have originally been filled by those best qualified to hold them. Consequently, the votes for Prof. Hayem's admission were nearly equally divided; but eventually a majority returned him to the Minister as the person they wished to be appointed. This in the ordinary course of things would have been at once acceded to; but M. Paul Bert is no ordinary person, and, not even condescending to discuss the matter with the Faculty, he, as one of the last acts of his expiring power, declared the Chair of Pathological Anatomy to be vacant.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

AT a meeting of the Council of the Poor-law Medical Officers' Association, held at their rooms, 3, Bolt-court, Fleet-street, February 7, the recent Poor-law inquiry at the Birmingham Workhouse was brought under their consideration, together with the comments of the local press thereon. It was unanimously resolved that the sympathy of the Association be accorded to Dr. Simpson for the unmerited persecution, expense, and anxiety to which he has been subjected at the instance of the Chairman of the Visiting Committee, and others of the Birmingham Workhouse. The Council also wished to express its unanimous opinion that the requirements of this huge workhouse-hospital cannot be efficiently attended to by the very limited staff provided by the Board of Guardians. At the same meeting it was also resolved—"That, having regard to the reply made by Mr. Forster, Chief Secretary for Ireland, to a deputation of the Irish Medical Officers' Association, that it was his intention to bring in a Bill to provide for the more efficient and satisfactory arrangements for superannuation of the Poor-law officers engaged in the administration of relief in

Ireland, this Council have determined at an early date to apply for an interview with Mr. Gladstone, for the purpose of soliciting from that gentleman his assent to the introduction of a similar measure in the interests of the Poor-law officers of England and Wales."

MANCHESTER MEDICAL SOCIETY.

THE annual meeting of the Microscopical Section was held at the Owens College on the 31st ult., when the following were elected officers for the ensuing year:—*President*: Dr. Dreschfeld. *Vice-President*: Dr. Leech. *Treasurer*: Dr. Ashby. *Secretary*: Mr. A. H. Young. *Committee*: Mr. J. Broadbent, Dr. Bury, Dr. Edge, Mr. E. H. Howlett, Dr. Dixon Mann, Mr. Southam.

RIVAL PROCESSES FOR THE ESTIMATION OF ORGANIC IMPURITY OF POTABLE WATERS.

THE earliest application of permanganate of potash for the estimation of organic matter in water has long been abandoned as too imperfect to be of any practical value. For many years two methods of ascertaining the extent of organic pollution have found favour with different analysts. One is that of Dr. Frankland, which consists in the ultimate analysis of the organic residuum left after evaporation, precisely as other ultimate organic analyses are conducted. In the hands of its author, and perhaps in those of very practised chemists, it may yield accurate results, but the amount of material to be operated on is so extremely small, that its opponents maintain, and very plausibly too, that the limits of experimental error often exceed the difference between the proportions of carbon and nitrogen contained in the best and in the worst potable waters. The other is the ammonia process of Mr. Wanklyn, who, after having removed the free ammonia and estimated it by Nessler's test, aims, by distilling with caustic soda and potassium permanganate, at converting the organic matter into ammonia, distinguished by him as albuminoid, and determining it in like manner. It offers the advantages of ease, rapidity, and simplicity. But the advocates of the rival method assert with truth that this conversion is not complete. This is admitted by Mr. Wanklyn, but he maintains that the amount so changed is a proportion sufficiently constant to provide an unerring standard of purity for practical purposes; and since the relative proportions of free and albuminoid ammonia give important indications as to the source and nature of the pollution, this process is likely—for some years at least—to hold its ground. More recently several improvements have been made in the process for determining the oxygen absorbed by the organic matter; in other words, the old permanganate process has attained far greater accuracy. Two separate determinations are made—one at the end of fifteen minutes, the other of four hours—by stoppered bottles of the water to be examined, to which certain quantities of sulphuric acid and permanganate have been added, the bottles being immersed in a water-bath at a temperature of 80° F. On taking the bottles from the bath, the excess of permanganate, as shown by the pink colour that remains, is removed by adding potassium iodide, and the free iodine removed in turn by introducing from a graduated burette a standard solution of sodium hyposulphite. This result is ascertained by the discharge first of the yellow tint, and afterwards of the blue colour produced by adding a few drops of a solution of starch. The hyposulphite required is an index to the permanganate consumed, and that to the organic matter oxidised thereby. This process has been adopted by Drs. Tidy, Odling, Crookes, Dupré, and many others of equal repute, but it is still on its trial. Some interesting observations by the last-named gentleman, read before the Society of Public Analysts in December, 1881, tend to show that though with

very pure waters neither time nor temperature are of much importance, with impure ones the oxidation is not complete, at any rate, when the organic matter is in certain states—probably when it is but slightly decomposed. Until we have determined on some process for the more complete destruction of such organic matters, so as to bring them within the influence of the permanganate, it must be conducted under uniform temperature and for equal periods of time, and will remain, like the estimation of albuminoid ammonia by Wanklyn's method, a comparative test of purity rather than an absolute determination of the amount of organic matters present.

THE POLLUTION OF THE RIVER THAMES.

A SUB-COMMITTEE of the Port of London Sanitary Committee was appointed in October last to inquire into the sanitary condition of the river Thames in the neighbourhood of Crossness and other outfalls, and to report what steps should be taken to remedy any existing evils. The report of these gentlemen has now been published, with the result of affording yet one more proof that the London sewer outfalls will have to be carried many miles further down the river, unless some other method can be devised for dealing with the sewage. The Metropolitan Board of Works and their officers have hitherto, very naturally, defended their own scheme; but even they must admit that the yearly increase in the amount of sewage is so great as to falsify previous calculations. Thus, whereas at Crossness the discharge in 1869 was calculated at 17½ million gallons per year, in 1878 the quantity had risen to nearly 27½ million gallons; whilst at Barking the increase was still more remarkable, the advance being from under 13 million gallons in 1869, to over 30 million gallons in 1878. In the face of these figures, it is not surprising to learn from the report that the worst specimen of river-water examined was one taken at Barking on November 23 last, when the tide was running down, and which was found to contain about one-fifth of its volume of sewage. The Crossness outfall analysis, though very bad, gives a far better result than this. Lower down the river, owing to the enormous dilution and the influence of oxidation, the water again becomes much less foul, and a sample taken off Tilbury may be said to have been practically uncontaminated. Dr. Collingridge, the Port Medical Officer of Health, observes that, whatever may be the results of analyses and the inspection of the river during the winter season, there can be no doubt with those who are in the habit of travelling on the Thames during the hot weather as to the extremely foul state of its waters, and there is abundant evidence to show that, at any rate, some part (and that by no means a small one) of its offensiveness is due to the discharge of the sewage by the Metropolitan Board of Works. The report admits that the action of the Board in taking the sewage of the metropolis down the river to Crossness and Barking Creek has materially benefited that part of the Thames immediately adjacent to London, but unquestionably at the expense of the purity of the stream at the localities indicated; and the Committee, therefore, after full consideration, deem it expedient that the Corporation should take some definite action in the matter, and apply to the Secretary of State for the Home Department, with the view of remedying the evils complained of. Further, in order that this recommendation may be acted upon at as early a date as possible, the report warns the Corporation that the Metropolitan Board of Works are about to expend £160,000 in enlarging their outfalls—a project which, if carried out, must yet further increase the pollution of the river.

DR. CARPENTER ON VACCINATION.

At a recent meeting of the London Society for the Abolition of Compulsory Vaccination, held at the Steinway Hall, Dr. Andrew Clark occupied the chair, and an address was given by Dr. W. B. Carpenter, C.B., on the increase of small-pox mortality in London during the year 1880. The wisdom of such a course is at least doubtful. Many who only read as they run will conclude from such a heading that Dr. Andrew Clark is an anti-vaccinationist, and that Dr. Carpenter is prepared to back up such views by infallible statistics. It is absolutely useless to reason with such people as profess this anti-vaccination as well as a good many more "anti" heresies. Witness what is here said by a Mr. Tebb, who, we take it, must be in every-day matters a man possessed of some degree of common sense.

The Chairman, in a few preliminary remarks, expressed his regret that the emotional element had too often been allowed to enter into discussions on the necessity of vaccination. He had great pleasure in introducing to the meeting Dr. Carpenter, the father of English physiology, and he hoped that all would regard the subject and consider his arguments from a purely intellectual point of view.

Mr. W. Tebb, the chairman of the executive committee of the Society, briefly opened the proceedings, and threw down the gauntlet to the advocates of compulsory vaccination by stating that the Society looked upon vaccination as an unreasonable and indefensible anomaly, the discovery of which was originally hailed with acclamation, chiefly because it afforded a substitute for the worse evil of inoculation. He quoted with satisfaction Mr. Canning's remark that he could imagine no circumstances that would induce him to make vaccination compulsory, and Sir R. Peel's words to the effect that he would never be a party to such a policy. He denied that vaccination gave complete protection against small-pox, but held that, in any case, the alleged benefit to society was of less importance than the rights of individuals that were outraged by coercion.

Dr. Carpenter then addressed the meeting. He pointed out the inadequacy of the objection that a system of compulsory vaccination outraged the rights of individuals, contending that in health, as in education, it was the paramount duty of the State to secure, as far as possible, the public advantage. The State, in his opinion, was morally bound to intervene in such a matter between the parent and the child, for the good both of the child and of society at large. He proposed to speak with special reference to the outbreak of small-pox in 1880, which, he understood, was specifically mentioned in the resolution that was to be moved in the House of Commons by Mr. P. A. Taylor. That outbreak, according to his view of the case, afforded grounds, not for the repeal of the Act, but rather for making its operation more complete and stringent. It was necessary first to consider the history of small-pox, with regard to which very important statistics existed in the bills of mortality for the last 200 years. In the case of other exanthemata—scarlatina, for instance—doubts might have been cast on the accuracy of the earlier figures; but small-pox had always been clearly recognised and distinguished from other diseases, and no such doubts could therefore be entertained. Now, from 1660 to 1678 the general mortality of the kingdom was 80,000 in every million of living persons, and the small-pox mortality was 4170; in 1728-57 the general mortality was 52,000 per million, and the small-pox mortality 4260; in 1771-80 the general mortality was 50,000, and the small-pox mortality 5020—a slight increase, which was probably due, as Dr. Heberden said long ago, to inoculation. However, the average small-pox mortality in the period from 1660 to 1880 was about 4000 per million. It was noticeable that at that time the disease periodically appeared in its worst form, and was the terror of all classes. Thus Louis XV. died deserted by all except Madame Du Barry, and the priests who chanted mass in the Chapelle Ardente were said to have been "condemned" to do so. And in 1750 Horace Walpole wrote, "Lord Dalkeith is dead of the small-pox in three days." These, of course, were instances in which the disease appeared in its greatest intensity and attacked the rich, who in these days would ordinarily have little to fear from

it. He could scarcely suppose that an outbreak of small-pox—say, in Pimlico—would deter Her Majesty from visiting Buckingham Palace. For the decade 1801-10 the general mortality was 29,000 per million, and the small-pox mortality 2040. In 1831-35 the general mortality was 32,000, and the small-pox mortality had fallen to 830. At that time he had himself seen as many as 100 cases of blindness from small-pox in unvaccinated persons, and it was probable that in the last century two-thirds of the patients at the eye hospitals were blind from the same cause, while the proportion now was only 5 per cent. In 1840 the Legislature provided the means of vaccination, and the result was that the mortality fell to 400 per million. Then came compulsory vaccination in 1853, and the small-pox mortality in the decade 1851-60 was only 278 per million. In 1861-70 the number was 276. He now came to the years 1871-80, which period was unquestionably exceptional. The mortality in these years among unvaccinated persons was so extraordinarily great, and the disease itself was so violent, as to suggest the notion that it might be indeed the Black Death of the middle ages. Yet, as far as he knew, no person who bore the evidences of vaccination had died of small-pox in the last year. In 1871 the disease was severe everywhere in Great Britain, but especially in Scotland, where compulsory vaccination had not been then adopted. Since that time, however, vaccination had been made compulsory in Scotland, where it was now enforced more effectually than in England, the result being that for the last five years there had not been twelve deaths a year in that country from small-pox. In London, on the other hand, thanks to the efforts of the Society, there was an unvaccinated residuum which kept the disease alive. The epidemic had come to us from France, and had arisen there from the unsanitary condition of the French soldiers during the late war. Having regard to all the circumstances of the epidemic, and from a study of epidemics in general, he had no hesitation in saying that the period 1871-80 was altogether exceptional, and that the rate of small-pox mortality during that decade afforded no basis for an argument against vaccination. He need only make one more observation. His opponents would doubtless urge that such places as Dewsbury, Leicester, and Keighley, where the anti-vaccinationists were strong, had had a comparative immunity from small-pox. But the truth was that the disease had already died out in those towns, and that the mere disuse or neglect of vaccination did not reproduce it. As an illustration of the fact that no sanitation would suffice to exclude small-pox, the case of San Francisco might be cited. In the Chinese quarter of that city a smouldering fire of small-pox had existed for some time, but there had been no considerable outbreak since the autumn of the year 1879, when nearly one hundred and fifty cases occurred in the best and richest parts of the city, in spite of the fact that, as the very low annual death-rate showed, the sanitation of the place was singularly good. Of the children, however, all of whom had been vaccinated—many from heifer lymph—only ten or twelve took the disease.

A discussion followed, in which members of the Society and others took part.

MIXTURE OF ANÆSTHETICS.—The Vienna mixture, under the use of which 8000 operations have been performed without a single accident, consists of three parts of ether and one of chloroform; and Billroth's favourite mixture is composed of three parts of ether, one of chloroform, and one of alcohol.—*Wien. Med. Zeit.*, January 3.

RATTLE-SNAKE POISON.—Dr. Filho has published (*Archivos de Museu Nacional de Rio de Janeiro*) the following results of his experiments on the poison of the rattle-snake:—1. The poison of *Crotalus horridus* acts on the blood by destroying the red blood-corpuscles, and by changing the physical and chemical quality of the plasma. 2. The poison contains some mobile bodies similar to the micrococcus of putrefaction. 3. The blood of an animal killed by a snake's bite, when inoculated to another animal of the same size and species, causes the death of the latter within a few hours, with the same symptoms and the same changes in the blood. 4. The poison can be dried, and preserved for a long period without losing its specific quality. 5. Alcohol is the best antidote to the poison of *Crotalus horridus* known at present.—*Louisville Med. News*, January 7.

FROM ABROAD.

IMPURE CHLOROFORM.

M. LUCAS-CHAMPIONNIÈRE called the attention of the Société de Chirurgie (*Union Méd.*, December 20 and 27) to one of the causes, if not the principal cause, of the want of success which surgeons have met with of late years in chloroformisation, and also of the accidents which it produces. This cause is the impurity of the liquid. In this matter he is of opinion that experimenting with chloroform upon animals is of no use (and especially on the dog), as the effects produced are nowise comparable with those observed in man. The human economy in general bears chloroform very well, although now and then we meet with individuals who resist its influence. With pure chloroform we may eventually overcome these; but if it is bad, and we continue the inhalations, death may ensue. When at the Maternité, M. Lucas found that with certain kinds of chloroform the semi-anæsthesia suitable for women in labour could not be obtained without employing doses capable of producing complete anæsthesia; and in private practice, when he had forgotten to take his own chloroform with him, he found that enormous quantities (100, 150, or even 200 grammes) of that purchased of *pharmaciens* were required. Whether in midwifery practice, or in operations, he has often found dangerous symptoms produced, and the chloroform in such cases has not had the sweet odour of the genuine article, although the nature of the impurity has not been discoverable. Many surgeons have declared to M. Lucas that accidents are of much greater frequency now, and this they agree in attributing to the bad quality of the chloroform. Such accidents, however, may be in part attributable to the too rapid and sudden administration of the chloroform, which is best given slowly, allowing the susceptibility of the patient, so to say, to be felt for. Chloroform is now manufactured in large quantities, and, owing to the tax on ordinary alcohol, the methylic is employed. This is the chloroform now exclusively supplied to the *pharmaciens* of Paris, who afterwards purify it more or less. Chloroform, purified and tested by M. Yvon's process (to be presently noticed), exhales a much pleasanter odour, and acts much more promptly and completely, and in infinitely smaller doses, than the ordinary chloroform, while its employment is attended with far fewer accidents. M. Berger, of La Charité, observed that he had for some time past found that the chloroform supplied to the hospitals was changed in its physical characters, no longer possessing the well-known sweet and penetrating odour, and causing, when inhaled, an irritating sensation analogous to that caused by the vapours of acetic acid. Another sign of bad chloroform is that it leaves on the compress, after its evaporation, a brownish or greyish circular stain, indicative of fatty matters in the liquid. When this chloroform is used, the patient resists the inhalation for a much longer time, and more violently, than when a pure article is employed. The respiration becomes slower, so that there may be only five or six inspirations in the minute. The establishment of anæsthesia is long and difficult, and the patient becomes purple or cyanosed. The veins of the face and neck are turgid, and the pulsations of the jugular veins are very sensible. In one word, true asphyxia is produced by the stagnation and overcharge of venous blood in the right heart. It need not be said that such a state is one of most serious danger, for it leads to secondary syncope, which may become rapidly fatal. With impure chloroform, M. Berger states that this change in the respiratory type is of constant occurrence; and such impurity is not detectable by chemical analysis, but is always indicated by the irritating odour of acetic acid. Notwithstanding all the pains taken at the hospitals to supply pure chloroform, this is often very far from being in that condition, owing to the large quantities kept for use, which become deteriorated by the action of light and air. M. Berger has almost always been able to induce regular anæsthesia by the chloroform purchased of the *pharmaciens*, and has never known it to produce any alarming accidents. M. Maurice Perrin has been much struck with the great deterioration of the chloroform employed

at the present time, compared with that of an earlier period, which he attributes to various modifications in the preparation of the liquid on a large scale. Its action is now more slow and irregular, and is much oftener than formerly attended by alternations of excitement and collapse, and followed by nausea and vomiting. The small pulse and chills constitute a pathological condition which can only be attributed to the chloroform. The sweet apple-flavour of the chloroform also has been exchanged for a very disagreeable empyreumatic odour. But samples of the same chloroform which give rise to the above results, after they have been rectified, will induce anæsthesia on the selfsame patients in the most regular manner. But while agreeing that so many of the accidents and irregularities of chloroformisation are due to the impurity of the agent employed, M. Perrin cannot admit that death may not result under the use of the purest article employed in the most able manner. This he does not believe to be due to the absorption of an excessive quantity of the vapour, but to primary or secondary cardiac symptoms, which it is impossible to foresee or prevent, however skilful the operator may be. This, he thinks, should be widely known in reference to the legal responsibility of surgeons. M. Perrin is of opinion that it is very important to employ freshly prepared chloroform, and that this should be kept (but for as short a time as possible) in blackened bottles secure from the action of light and air. With respect to the treatment of the accidents produced by chloroform, he believes that artificial respiration by the method of Martini of Florence, which is very simple, furnishes the best results.

Some of the speakers denied the bad effects said to be produced by the chloroform used in the Paris hospitals; and M. Desprès especially drew attention to the few deaths that had occurred during the long period it had been in use. He thinks the question of its purity has been much exaggerated, and any ill effects are rather the result of individual susceptibility or bad administration of the chloroform. He believes that the greater proportionate number of deaths which occur from its use in England is due to the enormous, massive doses employed by the English surgeons. M. Tillaux is also desirous that no needless alarm should be excited with respect to chloroform; for, like M. Desprès, he has for a long time past constantly employed the hospital chloroform without ever meeting with a serious accident, and, as far as he has observed, the chloroform of the present time is very much what it used to be. Now, as formerly, some patients are readily influenced by it, and others are so with difficulty; some exhibit great congestion, and others do not; and the same with vomiting. All these inconveniences and accidents depend as much upon individual predisposition and mode of administration as upon the chloroform employed. Prof. Le Fort, while admitting that serious asphyxia or death may not result from the use of the hospital chloroform, maintained that, owing to the changes which take place in it while stored away in large quantities, it undergoes alterations which deteriorate its quality, so that vomiting and nausea are much oftener produced than by the chloroform of the *pharmaciens*. To obviate these inconveniences, he proposes the adoption of a procedure which has long been known, and which answered perfectly during the late war. This is the keeping the chloroform for use in slender tubes, hermetically sealed, and containing from twenty to thirty centigrammes per tube. The chloroform remains quite unchanged and unchangeable in the tube until the surgeon is ready to use it. Prof. Le Fort has a tube which was charged with chloroform in 1849, and which he has no doubt would be found perfectly pure.

In the *Progrès Médical* of December 31, Dr. Yvon refers to certain tests of the purity of chloroform published some time since by Prof. Regnaud, which the surgeon may resort to himself. These are:—1. The sweet odour of the chloroform. 2. It should not redden litmus-paper. 3. It should give no precipitate, nor even produce turbidity, when shaken with a solution of nitrate of silver. 4. It should not become coloured when carried to a boiling point with concentrated solution of caustic potash. 5. Sulphuric acid should not be blackened when brought in contact with chloroform. Other tests can only be practised by the chemist, such as the determination of the density and boiling-point; but Prof. Regnaud states that no chloroform can be regarded as pure which does not satisfy the above-named conditions. But,

however pure chloroform may be, it is continually in danger of undergoing spontaneous changes, so that its purity requires verification from time to time; and when it is kept in a bottle incompletely filled, more or less imperfectly corked and exposed to the light, this is soon diminished. For the detection of the changed condition, even before it becomes dangerous, M. Yvon employs, as a test, permanganate of potash one part, caustic potash ten parts, and distilled water 300 parts by weight, which form a solution of a beautiful violet red. This, brought into contact with chloroform that has been rectified, does not change colour; but if the rectification has been incomplete, it is more or less rapidly reduced, its reduction being preceded by a change of colour to green. This permanganate in solution, therefore, supplies the *pharmacien* with a most delicate and rapid test of the purity of the chloroform furnished to him, and, employed from time to time, ascertains whether the original purity is still maintained.

DIGITAL EXAMINATION OF THE ORIFICES OF THE EUSTACHIAN TUBE.

Dr. Wynne, in the *Boston Med. Jour.* for November 17, in a paper entitled "Practical Inductions drawn from One Thousand Digital Examinations of the Pharyngeal Orifice of the Eustachian Tube and Fossa Rosenmüller," wishes to call the attention of the profession to the great utility of making this examination, in which he has perfected himself by constant practice in the New York hospitals. The method, he observes, is not new, and is only going a step further in parts to be examined than the region so frequently explored digitally by dentists.

"I am now," Dr. Wynn observes, "as independent of the use of the rhinoscope as I am dependent upon the use of my laryngoscopic mirrors in the examination of the larynx. By its use I can immediately determine the normal or pathological condition of the parts within reach of the finger, namely, the pharyngeal orifice of the Eustachian tube, the posterior fossa of Rosenmüller, Luschka's tonsil, occupying a central position in the posterior wall of the pharynx, and terminating laterally in this fossa, the posterior nares immediately in front; and here by the digital examination I am able to diagnosticate the existence of polypi and hypertrophy of the membranous covering of the inferior turbinated bones. A most important point gained by this method is a knowledge of the *direction* of the Eustachian tube at its pharyngeal extremity, and the existence of delicate contracting bands in the fossa of Rosenmüller. Profs. Cohen and Mackenzie mention the existence of these bands, but they are more numerous than these writers would lead an inexperienced operator to suppose. Whenever in a new case I find it difficult to pass my Eustachian catheter, I immediately make a digital examination, and many times I find the difficulty lying in the misdirected orifice, this being drawn backwards by contraction of bands or by contraction of the membrane itself lining the fossa posterior to the orifice, as is frequent in the condition known as pharyngitis sicca. Many times, by rupture of these bands, I have succeeded in guiding the curved end of my catheter by the finger passed up and behind the soft palate into an otherwise practically closed tube, inflated the ear by the bag, and sufficiently increased the hearing to warrant the successful treatment of a case which I could not otherwise have undertaken. The pathology of the fossa of Rosenmüller offers an inviting field of study. . . . The method of digital examination consists in passing the index finger of the right hand, when the right tube-orifice is to be examined, into the mouth, up and behind the soft palate, to the orifice, which can easily be distinguished by its slight depression, the operator standing on the right side of the patient. In examining the left tube, the order is reversed. The time for the examination varies from half a minute to three minutes, and disease of any of the structures that can be examined is immediately determined. This method can be used in cases where, by complication, the use of the rhinoscopic mirror is either unsatisfactory or impossible. I think that in the future the digital method of rapid examination will become one of routine practice in diagnosis of disease of these parts, and that the close aural relation of the naso-pharynx will become a more generally recognised element among the profession in the study of the pathology and therapeutics of ear-disease."

REVIEWS.

On the Bile, Jaundice, and Bilious Diseases. By J. WICKHAM LEGG, F.R.C.P., Assistant-Physician to St. Bartholomew's Hospital, and Lecturer on Pathological Anatomy in the Medical School. London: Lewis. Pp. 719.

It is by no means an easy task to attempt a review of such a book as this, for it is one which both repels and attracts. The faults, however, lie mainly on the surface; they "leap to the eyes," as the French say, whilst the more solid matter has to be sought for underneath this somewhat unprepossessing envelope. Briefly, then, let us say that the diction is in many places stilted, almost pedantic—a fault which is all the more uncalled for, since the author can write perfectly good and plain English when he likes. But let that pass; and let us turn—which we gladly do—to the mine of wealth which the volume itself contains, for it is the outcome of a vast deal of labour; so great, indeed, that one unfamiliar with it would be surprised at the number of facts and references which the book contains.

The work itself may be divided into two parts—one almost purely physiological, the second more clearly practical. First the author deals with the chemistry of the bile, beginning with the bile acids. This may, in one sense, be the more scientific mode of procedure, as undoubtedly the bile acids are the most important of its constituents, but not, perhaps, the most convenient, since from all ages the yellow or green colour has been recognised as characteristic of bile; the peculiar bitter of the acids, though likewise well known long centuries ago, never having been so strikingly brought home to the common mind and understanding as the yellow or green tint of bile; and the acids have only recently been separated in a pure form. They were first obtained in the shape of what is sometimes called "crystallised" bile, a material for which the highly objectionable title of "bilin" is still retained by some. With regard to these mixed acids, Dr. Legg points out the various modifications of Pettenkofer's test, together with the numerous fallacies to which the unskilled operator is exposed. Noteworthy among these is the absurdity of attempting Pettenkofer's test with ordinary bilious urine, especially if it contain albumen, which, even in the pure condition, gives a red or purple colour with sulphuric acid and sugar. The author has also done scientific students good service by endeavouring to disentangle the maze into which the origin and relations of the bile acids has been allowed to lapse, to a great extent from a confusion of terms. Thus, Strecker, to whom we are so much indebted for our knowledge of bile, gave the name of cholic acid to the substance we commonly call glycocholic acid, and which we recognise as a compound of glycine or glycocholate and cholalic acid; whilst he termed choleinic acid what we call taurocholic acid. These three terms—cholic, choleinic, and cholalic acids—are thus apt to be confounded. In connexion with this part of the subject the author has made a slip which we can only wonder is not more frequently made. He has apparently written *gluten* for gelatin, i.e., the German for the English word, but they are so apt to be confounded that it is, we say, a wonder that the error is not more frequently committed in the haste and hurry of writing and speaking.

Turning next to the bile pigments, we meet with some very interesting matter. First, and most judiciously, as we think, the author selects as his title for bile red, Bilirubin, instead of one of the multitude of horrid compounds which men have from time to time most ingeniously but most perversely invented. Two matters of moment meet us here—one is the relation of bile pigment to urinary pigment, the other the relationship of the same to blood pigment. As regards the former of these, the first important point is undoubtedly the relationship of the bile blue to indigo blue; but we cannot help bearing in mind that bile pigment is, as many believe, for the most part excreted and finally got rid of by the bowels; whilst experience teaches us that if but a very little of it, in the unaltered state, is absorbed, we promptly have jaundice. This would tend to show that the origin of both may be similar, or even identical, but not that the one is converted into the other. As regards this origin, the relationship of bile red to hæmatoidin has been looked upon by many as thoroughly well established. Dr. Legg does not seem inclined to this view, partly, perhaps, on the grounds

afforded by spectrum analysis; but from what we know of this mode of research we might well learn that very slight chemical changes give rise to notable spectral differences, and we are forced to say, If the bile-red does not come from blood-red, whence does it come? At all events we have such authorities as Preyer on the side of the spectroscope, and Kühne and Hoppe-Seyler on the side of the test-tube. Whom then are we to believe?

We may pass over various intermediate passages, and turn at once to the characters of human bile as obtained through accidental fistulæ. Thus obtained, the bile is bright golden yellow, limpid, and free from viscosity, specific gravity about 1010 or more, and neutral or very faintly alkaline. It contains no sugar, albumen, or urea, and the only acid found in human bile, contrary to ordinary belief, was in one case at least the glycocholic.

We gladly pass over histories of opinion from Hippocrates downwards, and thus come to certain questions which should hardly now be in dispute. Thus, the very fundamental question, as it may seem, as to whether the bile is actually formed in and by the liver, or merely separated by that organ from the blood, is still unsettled, and experiments are so fallacious that they do not greatly help us. Such being the case, it may be as well to leave the whole matter alone, for the unaided light of reason is not likely to be of much service. Of little greater practical moment are inquiries into the total quantity of bile secreted, or of the relationship of this quantity to the digestion of food: though it is generally reckoned that about twenty ounces, less or more, are secreted in the twenty-four hours; that in animals where the intervals between ingestion are prolonged, the quantity is increased some time after a meal; but that great variations in the quantity secreted occur in the same animal, where dogs are the subjects of experiments.

The chapter on the functions of the bile can hardly be said to be very satisfactory; in the nature of things it cannot be so. Broadly speaking, we are driven to this conclusion—that some constituents of the bile pass into the intestine, and are expelled in the fæces; that some are reabsorbed, and, after undergoing various changes, probably make their way out of the body by the kidneys. We know this, moreover—that interference with the supply of bile in the intestine is soon followed by notable interference with nutrition, and that it is useful as an aid in the absorption of fatty matters. Such actions seem unimportant for calling into play such an organ and such a quantity of a fluid. Nevertheless, we know no more. The chapter on the action of drugs in stimulating or depressing the secretion of the bile is to a very great extent taken from Rutherford's experiments on this subject. Not the least curious of those results thus obtained, and confirmed by the researches of others, was the effect of mercury in lessening the quantity of bile excreted after its exhibition; but such substances as iridin and euonymin have not yet become popular remedies. Most men are content with the old-fashioned drugs, not even excluding a blue pill and a black draught. What follows, in the next chapter, contains more of the author's own work than do most of the others on physiological matters. It deals with the action of the various constituents of bile on the different tissues of the body. The influence of the bile acids is that which has been most studied, especially the curious property possessed by cholalic acid of suddenly and completely dissolving red blood-corpuscles. It has also a very marked action on certain tissues, especially on the muscular tissue of the heart, thus slowing the pulse, but this is perhaps through the heart ganglia. The bile colouring matters are inert.

Scrofula and its Gland Diseases. By FREDERICK TREVES, F.R.C.S., Assistant-Surgeon to the London Hospital. London: Smith, Elder, and Co. 1882. Pp. 202, with 5 Plates.

MR. TREVES avails himself of the well-known function of a preface to explain why he has written this book. With the exception of a partial monograph by Price in 1861, no work on the general pathology, diagnosis, and treatment of scrofula has appeared in English since the work by Glover, of Newcastle, in 1846; and yet the intervening years have been for the pathology of scrofula a time of many changes, and, Mr. Treves thinks, of immense progress. When Glover's book came out, chemistry was the hope of the pathologist; and Glover's strength, as an original worker, was chiefly spent

in numerous chemical analyses of scrofulous matter, and of the blood and urine of scrofulous patients. It may be doubted whether Mr. Treves has put an equal amount of hard work into his book, but he has at all events the good fortune to be on a more hopeful line than the chemical. His book is most certainly justified not only by reason of the gradual accumulation of new matter not yet embodied in England in a special treatise, but also by his fitness for the work. The first half of the book is mainly exposition and criticism of former and present opinion, but it is the exposition and criticism of a well-read and observant man; it is in Chapter VI. of Part 1, on the correlation between scrofula and phthisis, that he chiefly takes the opportunity of being original. But in all the chapters in which scrofula directly comes in, we find the traces of close personal observation, and the book as a whole may be regarded as one of the numerous valuable results of that excellent institution, the National Hospital for Scrofula at Margate. We have, however, something against Mr. Treves before we leave Part 1. The long chapter on "The Scrofulous Individual" is, on the whole, excellent, although it overlooks one or two points in the natural history of scrofula, such as the tendency to warts of the face and neck in childhood, which used to be mentioned. But why does Mr. Treves give way to what some might consider smart writing, especially when he has to speak of the older authors? Thus (page 83): "The physiognomy of scrofula, the type of face and form supposed to be indicative of the disease, have for ages been subjects upon which writers have loved to exercise their imaginative and descriptive powers. Some extraordinary pictures have been given of the scrofulous individual, who has at one time appeared repulsive, and at another peculiarly pretty." Quite so; and, at page 87, Mr. Treves himself cannot but depict the scrofulous in practically the same terms, however amusing such language may have appeared in the pages of his predecessors. Again (page 83): "Other observers divided the scrofulous into two classes—the sanguine and the melancholic. This division, while ingenious and affording great opportunities for the exercise of fancy, had the practical disadvantage that the bulk of scrofulous persons belonged neither to the one class nor to the other." But two pages later we come to business: even Mr. Treves finds it necessary to divide the scrofulous into sanguine and phlegmatic; and, although the bulk of scrofulous persons belong neither to the one class nor to the other, yet those are the physiognomonic types of all the scrofulous, except such as, on the one hand, "look robust," or, on the other, are "merely out of health." Once more (page 94), "The scrofulous have been distinguished by the possession of certain faculties by one writer, and by the lack of the same by another. An observer who goes more into detail, sagely remarks that in the scrofulous, 'the imaginative faculty preponderates over the reflective,' while another has discovered that the great feature of the strumous mind is a 'gentleness of disposition and a refinement and judgment in matters of taste.' Without raking up more of the ghastly examples of human error that lie buried in the pages of ancient books, I might," etc. And all this because one man calls it the imaginative faculty, and another calls it a gentle disposition and a refined taste, and because both alike find those mental qualities associated with inherited scrofula! We have marked other occurrences of the same unfortunate tendency, although the above are the chief. We have hesitated to rake up, as Mr. Treves says, these ghastly examples from a book which is in most places fair and sensible, but every critic owes a pious duty to the past.

In Part 2, which treats of scrofulous affections of the external lymphatic glands, we come upon Mr. Treves' more particular theme. It consists of four chapters, devoted respectively to the etiology, pathology, diagnosis, and treatment of the scrofulous lymphatic glands accessible to the surgeon. In the chapter on treatment, regard is had to the fact that scrofula is not a disease that may be treated according to an unvarying routine; there are stages or phases of the disease, and some discrimination is wanted in the therapeutic measures. The chapter on the pathology of the strumous gland is based upon the examination of glands from upwards of twenty cases, and it is illustrated by five plates. The illustrations are exceedingly well drawn and engraved; it would have added to their usefulness if a brief note of the situation of the lymphatic gland, its size, external characters, and the like, as well as the age and history of the patient, had been included in the description

of each. The history of these growths is commonly as follows:—Small hyperplastic centres appear in the follicular tissue, with concomitant changes in the lymph-sinuses; the subsequent changes may be more acute or more chronic, but caseous necrosis is the usual termination of the hyperplasia. Mr. Treves is much exercised about "a singular and incorrect statement that appears to have been handed down from one pathological handbook to another," to the effect that the changes begin in the sinuses and follicles of the cortex. We have looked through a number of pathological text-books, and we find that they say pretty much what Mr. Treves says, viz., that the changes begin in the follicular tissue, both cortical and medullary, and that there is thickening of the fibres stretching across the sinuses. That Mr. Treves has himself no real prejudice against the follicles of the cortex is shown by the fact that his very first drawing—a most excellent one—is of "two cortical follicles from a gland somewhat actively affected, showing the first change in the scrofulous process." The inevitable giant-cell figures largely in the pathological chapter. The significance of the giant-cell has come to be very much a question of hard swearing, like the facts of a collision at sea. Mr. Treves is all for the lymph-coagulum view, and he does not enter very successfully into the spirit of any other view. His figures of coagula in vessels, which are not taken from a lymphatic gland, but from "a piece of chronically inflamed connective tissue about a knee-joint," have undoubtedly a resemblance to giant-cells. Similar appearances of many nuclei embedded in a kind of coagulum are discoverable in the air-cells in phthisis, and in the tubules of the scrofulous testicle, arising in both cases from the cementing together of the more or less detached epithelial cells. Some authors have described these as spurious giant-cells, in order to distinguish them from the remarkable hyperplastic cells with many nuclei which are found in their immediate neighbourhood, and upon which the scientific interest is chiefly directed. But we cannot take leave of Mr. Treves either in sorrow or in anger. His book can well afford to stand on its own merits; it contains good sound work, and adds materially to the stock of knowledge available to seekers after truth in the direction he has chosen for his work.

The Registrar's Report of University College Hospital for 1880.
London: Harrison and Sons. 1881. Pp. 202.

THIS volume of Reports presents special features of interest. Mr. Stanley Boyd, in some remarks introductory to the surgical statistics, states that the present volume is the first in which the matter has been arranged according to the plan suggested by the Association of Registrars.

This Association, it will be remembered, is of very recent date. It was formed for the purpose of introducing a common system of registering patients and cases in all the London hospitals, with a view to the more easy and accurate contrasting of the work of one hospital with that of another.

Thus, in the work before us, Table I. consists of an index and an appendix. The former shows the total number of cases treated, and the pages on which details may be found; while the latter (some sixty pages) gives particulars of such cases as are not dealt with in the special tables further on. Cross references are given when two or more diseases occur in the same patient. Post-mortem accounts have been placed side by side with the clinical, to render more easy a comparison of pathological states with symptoms.

A new table of "morbid growths" has been added. Should each hospital publish a similar one, a very interesting statistical table would in a few years result.

We congratulate the Association of Registrars on the success which they have achieved so far, and hope that they will continue their efforts until many other much-needed reforms in hospital registration have been brought about.

Our space is too limited to allow us to go adequately into the details of this work. Such reports are for individual study rather than for general survey.

At the general monthly meeting of the Royal Institution of Great Britain, held on Monday, February 6 (George Busk, Esq., F.R.S., Treasurer and Vice-President, in the chair), William Bowman, Esq., LL.D., F.R.S., was elected Honorary Secretary; and Warren De la Rue, Esq., M.A., D.C.L., F.R.S., was elected Manager.

GENERAL CORRESPONDENCE.

"AMBULANCE."

LETTER FROM MR. J. DIXON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I believe this odd word first came into use to designate the field-hospital system organised by Larrey during the campaigns of the First Napoleon. It does not lend itself kindly to English usage. At one time we read of an ambulance system, at another time we find the name applied to the carriage itself used for the conveyance of the sick; and the excellent society which it is now proposed to establish is announced as "The Hospital and Accident Ambulance Service of London." Now, every Act of Parliament has what is called a *short title* appended to it; and in like manner a more succinct designation might be found for the new society and its system.

The emergency-men in Ireland have become well known by the invaluable services they have rendered in securing crops and rescuing Boycotted landlords, and "Surgical Emergency Society" would be at once understood. To call a carriage for conveying the sick an *ambulance* seems contrary to all common use of speech, while "emergency-carriage" or "emergency-van" would be intelligible to everybody.

Dr. Howard's carriage seems so convenient and practical that it deserves to be launched with a convenient and practical name

I am, &c,

February 6.

J. DIXON.

OBITUARY.

PROFESSOR THEODOR SCHWANN.

"THE medical and scientific world has sustained a great loss in the person of Professor Theodor Schwann, of the University of Liège, who has recently died, after an attack of cerebral congestion, while he was on a visit to Cologne. Born at Neuss, near Düsseldorf, in 1810, he pursued his studies at Bonn, Würzburg, and Berlin, at which last city he was for some years the assistant of Johannes Müller at the Anatomical Institute. His investigations produced an immense effect, and it may be said of him that he was the creator of the cell-doctrine, and one of the initiators of the progress which physiology has realised at the present time. Belgium had the good fortune to become the home of this remarkable *savant*, for in 1838 he was summoned by the University of Louvain to fill the Chair of General and Descriptive Anatomy, and in 1858 he was nominated Professor at the University of Liège, which he never afterwards quitted, and where he successively taught Anatomy and Physiology. He was a Commander of the Order of Leopold, Member of the Prussian *Ordre pour le Mérite*, and Fellow of the Belgian and Berlin Academies of Science, of the Royal Society, and of the Institute of France, etc. Notwithstanding his high position and his incontestable and uncontested scientific importance, Schwann was possessed of a modesty equalled only by his acquirements. His was a great mind and an excellent heart; so that in Belgium, his second country, he had none but friends."—*Presse Méd. Belge*, January 22.

EXCESSIVE SUSCEPTIBILITY OF THE UTERUS.—Prof. Verneuil observes that while the uterus most frequently may be submitted with impunity to the most varied operations, it is of importance to bear in mind that in some women the most simple ones are attended with disastrous results. A fatal peritonitis has followed a simple exploration per vaginam, examples of which are given in the thesis of Leteinturier and in Engelmann's memoir; and Prof. Verneuil cites two cases in which death supervened in women suffering from cancer of the uterus. In one perchloride of iron had been applied, and in another some fungosities had been slightly touched with chromic acid. After even the most simple surgical intervention in the uterus, the most minute precautions should be taken in order to avoid these possible accidents.—*Jour. de Méd. Pratique*, Oct.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 24.

ANDREW WHYTE BARCLAY, M.D., President, in the Chair.

ON HERNIA OF THE OVARY.

Dr. ROBERT BARNES read a paper on hernia of the ovary. The author said that scanty advantages had been taken of the opportunity which the ovary brought to the surface of the body offers for physiological observation. He cited in abstract some of the most marked cases of hernia of the ovary which have been published, notably those of Goucy, Pott, Desault, Lallemand and Poquet, Deneux, Veboux, Cæsar Hawkins, Oldham, Holmes Coote, Ettingen, Meadows and Lawson, Courty, Leopold, Beigel, Boinet, Rheinstadter, Raffo, and related two cases observed by himself. The first case was admitted by him into St. George's Hospital in 1877. The patient was a single woman, aged forty-one. She had always enjoyed good health. At twenty-four she sustained a rupture in the left groin, and afterwards wore a truss. At thirty-eight she observed a second swelling behind the first. The swelling and tenderness of the ovary were observed before and during the menstrual periods. Corresponding sphygmographic observations showed distinct rise of tension preceding the flow, and subsiding when the flow set in. The ovary was removed. A description and illustration of it were submitted by Dr. Goodhart. He referred to Dr. Chambers' case in the *Obstetrical Transactions*, in which bodies simulating ovaries turned out to be testicles. He discussed the etiology of hernia of the ovary and uterus, citing Cruveilhier's views. He referred to the frequent complication of anomalies of development of the genital organs in association with hernia of the ovary; also with extra-uterine gestation. He enumerated the varieties of hernia of the ovary, referred to the supposed greater frequency of inguinal hernia when the ovary is concerned, to the greater frequency of congenital hernia, the complications with intestine and epiploon, the dependence of hernia of the uterus upon pre-existing hernia of the ovary, citing Cruveilhier's theory and the confirmatory conclusions of Puech, Deneux, and Cæsar Hawkins. The author then discussed physiological points illustrated by the observation of the herniated ovary: how the ovary swells concurrently with increased tension of the vascular system before menstruation; how the round ligaments swell. He discussed the order in which the phenomena of menstruation occur, arguing that the ovarian nismus is the *primum mobile*; that nervous and vascular tension follow; and, lastly, the menstrual flow; resting greatly upon sphygmographic observations. He suggested that the recent practice of oöphorectomy on Battey's principle will supply opportunities for deciding this and other questions, and proposed that sphygmographic observations should be made upon the subjects of this operation. He then discussed the diagnosis and treatment of hernia of the ovary, contending that it furnishes a legitimate *motus* for Battey's operation *quoad* this affection at least.

The paper was illustrated by sphygmographic tracings by Dr. Fancourt Barnes; by drawings of the amputated ovary by Dr. Goodhart; and by a cast of the parts by Dr. Harper. Dr. R. BARNES pointed out that the cast exhibited showed the outward appearances very well.

Dr. ROUTH thought that Dr. Barnes's observations had an important bearing on the subject of menstruation. He had a patient with an ovary prolapsed into Douglas's pouch, which, when pressed upon, gave rise to inordinate sexual excitement, the painful effects of which lasted for some time. Was there any such thing in hernia of the ovary? Ordinarily, in prolapse of the ovary, pressure produced sickness, just as it did on the testicle in the male.

Mr. HULKE said such cases as those recorded by Dr. Barnes were not very uncommon, but as to their nature, one must be always uncertain without a post-mortem examination. A good many cases had been collected in Germany, and published in 1871. Of these some twenty-seven or twenty-eight were inguinal, and ten or twelve double; they were almost all congenital. In one of Dr. Barnes's cases the peritoneal tube may have been wanting, owing

to obliteration by means of the truss. When the cases were congenital, the Fallopian tube was almost always with the hernial protrusion; but if developed after birth, this was rare. As in most cases there was a persistent patent process of peritoneum, this gave rise to a certain amount of risk in operating. Many could wear a truss well; others could not; and in many there was great trouble about the menstrual period.

Mr. LANGTON said that in connexion with the Truss Society they saw many movable tumours in the groin, a considerable number of which were considered ovarian. Within a few years they had seen as many as sixty-seven inguinal swellings, of which forty-two were congenital and twenty-five occurring at all ages. There was often swelling of these ovaries at the menstrual period, but when the hernia were irreducible there was in many no excitement. He had seen no such discomfort as to necessitate operation; in most a truss could be applied satisfactorily.

Dr. HEYWOOD SMITH said that it had been commonly understood that pressure on the ovary produced pain. Sexual excitement was hard to understand, except the ovary was connected with something else.

Dr. BARNES, in reply, said that a case under the care of Mr. Lawson had been fully discussed in the body of the paper. Mr. Langton's observations would rather tend to confirm Cruveilhier's conclusions. In no case had he seen sexual excitement. He had seen, however, a notorious case of a lady whose ovaries became enlarged and painful at each period. She had consulted almost everybody, but would follow no one's advice. As to the preponderance of these cases on the left side, it might be said that the whole tissues were looser on that side. He thought removal quite a justifiable operation.

THE OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 11.

Dr. MATTHEWS DUNCAN, President, in the Chair.

FIBROID TUMOUR.

Dr. CARTER showed a fibroid tumour removed from a patient aged fifty-four, who had suffered from hæmorrhage for six years. The vagina was filled by a large smooth growth, an expansion of the posterior lip of the cervix. It was removed by écraseur under ether, and weighed twenty-one ounces and a half. The next day a large mass again filled the vagina, being the interstitial part of the tumour extruded. Ether was again given, and a piece weighing ten ounces and a quarter removed from the posterior lip of the cervix. On the third day there was again found in the vagina a polypoid mass springing from posterior wall of fundus. This was again removed by écraseur, and weighed three ounces. The patient did well.

Dr. OUTHWAITE showed a mummified fœtus, evidently developed up to about the second or third month. It came away after the delivery of a child in the seventh month of pregnancy. The placenta was single, and the membranes showed a manifest septum.

Dr. EDIS thought that the case illustrated a common incident. It often happened that, in twin pregnancy, a burst of hæmorrhage took place, and abortion was supposed to have occurred, when only one ovum was blighted, and might either be retained or expelled.

FIBROID TUMOUR COMPLICATING LABOUR.

Dr. GALABIN showed for Mr. Gillingham a uterus at full term of pregnancy, having a very large soft fibroid tumour growing from its internal surface. The os was found closed, and the head above the brim, and it was thought at first that the smooth elastic mass felt through the os was the sac of a second fœtus. This was disproved on attempting to scratch through the supposed membranes. A second practitioner called in took the case to be placenta prævia. The child was delivered with difficulty by version, and the patient died from shock and hæmorrhage shortly after.

The PRESIDENT called attention to salicylic cream (one part of the powdered acid to four or five of glycerine or vaseline) as a valuable means of keeping sponges, tents, instruments, etc., aseptic in the vagina. It had been suggested to him by Dr. Alexander Ogston, of Aberdeen,

and he had used it with success in inducing premature labour and other operations.

TREATMENT OF DYSMENORRHOEA AND STERILITY BY.
DILATATION WITH METALLIC BOUGIES.

The discussion on Dr. Godson's paper on the treatment of dysmenorrhœa and sterility by dilatation with metallic bougies was then continued.

Dr. ROGERS had fifteen years ago commenced the use of dilators, at the recommendation of the late Sir James Simpson. In married women, pregnancy often followed; but the results were not so satisfactory in the unmarried, who often relapsed into their former condition. Eventually he ceased to have confidence in their use, and he believed that they had been universally discontinued in London until the last few years. He had also given up the use of incisions, one of his patients having died after that operation. Eventually he turned his attention to the cure of dysmenorrhœa by the use of Dr. Wynn Williams' intra-uterine stem and shield, and in only one case had serious mischief arisen. In private practice, however, he preferred one of Meadows' or Routh's stems of vulcanite, as india-rubber soon decomposed. Since hearing the paper he had tried a No. 7 and No. 8 dilator upon one patient, but found that the latter gave extreme torture. Dilatation by sea-tangle was afterwards well borne.

Dr. BRAXTON HICKS confessed to a difficulty he had always felt in distinguishing the purely spasmodic dysmenorrhœa, to which the author professed to confine his paper. We might be able, during the menstrual intervals, to pass a sound readily up to the fundus, and yet the menses might be obstructed; for instance, from a hæmorrhagic coagulum, or from tumidity of the mucous membrane. How often were these conditions mixed with spasm in persons sensitive to reflex irritation—so that we had a compound condition. When we looked to the remedy employed by the author, we found that it was essentially dilatation by bougies graduated in size. Hence we might fairly conclude that the cases where these were of use were, more or less, at the menstrual period, cases of obstruction, unless it were argued that the mere passage of the metal tended to harden the mucous surface, and to render the uterus less susceptible and spasmodic. If, then, the cases were in a measure those of obstruction, they were out of the discussion, which was limited to those of pure spasm.

Dr. SAVAGE said that the instrumentalists contended that their inventions cured in some cases, relieved in most, and never did harm; whereas there was abundant evidence that they never cured, relieved only so long as they were used, and too often did much harm, even to compromising life. An eminent provincial surgeon had lately brought to the notice of the profession fourteen morbid specimens of the uterine appendages, some of the tubes containing half a pint of matter. It was said that these unfortunate subjects had been the round of the profession, and had been submitted to all sorts of instrumental treatment. Was it not clear that the original disease, if not produced by instrumentation, had been greatly aggravated by it? He agreed with Dr. Hicks and Dr. Herman, that every sort of uterine deviation and contraction was met with without suffering, and the converse. He thought the diagnosis of deviations by instruments untrustworthy, for the deviation supposed to be diagnosed was actually produced by the instrument. He deprecated the fast-growing tendency to interfere surgically with complaints referable to the uterine system.

Dr. PRIESTLEY thought that one of the disadvantages of discussions like the present was that those of limited experience were apt to conclude that all cases of dysmenorrhœa required local treatment. The theory that dysmenorrhœa was always obstructive was not borne out by facts, for severe pain in menstruation often occurred after the genital canal had been fully expanded by parturition, though it was true that, in the majority of cases, parturition cured previously existing dysmenorrhœa. There might be great suffering at what corresponded to menstrual periods where there was absolute amenorrhœa, or where the uterus was rudimentary. There was a large class of cases, more especially among unmarried girls, in which local treatment was absolutely unnecessary. He could not agree with the author, however, in dropping the term "obstructive dysmenorrhœa," for there were not unfrequent instances of genuine organic narrowing,

congenital or acquired, as the sequel of inflammation. A correct diagnosis was most important. Where local treatment was considered necessary, he thought in some cases dilatation was the proper course; in others, division of the cervix was more useful. Where there was a choice he preferred dilatation, considering incision to be much more hazardous.

Dr. GALABIN said that the most remarkable point about the cases was the very large proportion of them in which not only dysmenorrhœa, but sterility, seemed to have been cured. What was the mechanism of this cure? He had himself had cases in which, after years of sterile marriage, pregnancy had followed within a month after a single use of metallic bougies, or Priestley's dilators. Dr. Barnes had related cures of sterility by moderate incisions of the external os, and similar experience was not uncommon. The only common element in the three modes of treatment seemed to be that all made the access through the cervical canal more free. The natural inference was that a canal, though large enough to let the sound pass easily, might yet practically not give free enough ingress to the semen. *A fortiori*, a similar canal might not give perfectly free egress to the product of menstruation, which was not only fluid blood, but contained *débris*, if not shreds of mucous membrane, and often clots. Egress of menstrual fluid was not prevented, as ingress of semen appeared to be, because it had the contractile power of the uterus behind it; but this very circumstance was enough to account for spasmodic pain in a sensitive subject. He did not accept the author's theory that the sterility was due to spasm of the uterus ejecting the semen, for the painful spasm only occurred at the menstrual period.

Dr. MURRAY spoke in favour of the intra-uterine stem. The case of dysmenorrhœa and sterility so treated by him had been successful; and he thought the stem pessary much more likely to effect a cure in the so-called spasmodic dysmenorrhœa. He quite agreed with Dr. Hicks' views on this subject, and also with Dr. Priestley, that a great deal too much interference often took place.

Dr. AVELING said that dilatation for the cure of dysmenorrhœa might be effected in four ways—(1) by passive, or what had also been called physiological, dilatation by means of stems; (2) by wedging the canal open by sounds, bougies, or plugs; (3) by direct dilatation instruments or tents being passed into the canal, and expanded or allowed to expand; (4) by incision. Each of these methods, he thought, might be used satisfactorily, but no one should be used to the exclusion of the other.

The PRESIDENT regarded the mechanical difficulties of, or obstruction to, semen by the cervical passage as made far more important than they really were; and especially he noted the error of regarding the dimensions of the cervical passage as being stable, constant, or permanent. He had no doubt they varied, and almost certainly were enlarged during the orgasm of coitus. Were these conditions as important as represented, and were they stable or constant, impregnation could never occur, for the passage of the inner end of the tube was closed altogether; not a bristle could be passed. This was enough to show that it was wrong to consider the size of the passage without further investigation as to changes of the size. Many eminent men doubted the reality of so-called cures of sterility, and he had no doubt that most cases were mere lucky coincidences. He was not convinced of the reality of any cures except in these cases of combined dysmenorrhœa and sterility discussed in Dr. Godson's paper. One evidence in favour of the reality of the cures was, that all were done by substantially the same method, namely, dilatation of the cervix. Among the various means of dilatation, he held a well-known opinion in favour of that recommended in the paper just read.

Dr. GODSON, in reply, said that the dilators were not curved any more than an ordinary uterine sound, and not so much as those used by the President. It seemed almost doubtless that the patient upon whom Dr. Rogers had passed the dilators was suffering from *congestive* dysmenorrhœa, and was not a fit subject for the treatment. It was most important that a proper diagnosis should be first arrived at, and that dilatation should be only practised where there was absence of congestion; otherwise, there was great fear of inflammatory mischief ensuing. His paper treated only of spasmodic dysmenorrhœa associated with sterility, and therefore Dr. Priestley's remarks with respect to the treatment of young girls were outside the scope of the paper, but he entirely accorded with them.

NEW INVENTIONS AND IMPROVEMENTS.

HOFF'S EXTRACT OF MALT JELLY.

MR. L. HOFF, of 3, Charterhouse-buildings, E.C., already so widely and favourably known for his malt extract, alone, or in combination with various drugs, has brought out an Extract of Malt Jelly, which deserves to meet with general welcome and favour. It is a good, firm, clear jelly, of agreeable flavour. It is a very convenient form of malt extract, and hardly could be objected to, we should think, by anyone, young or old.

CEREALIS.—PHOSPHODONE.

NEW non-alcoholic beverages are being very frequently brought out for the comfort and satisfaction of "abstainers"; but we must once again observe that none of the many non-alcoholic drinks invented so far meet the necessities of the multitude. They are all too expensive; and till the working-man can procure a pleasant and refreshing non-alcoholic beverage for the same cost as his pint or so of beer, he will keep to the alcoholic beer. Neither of the two articles we now notice are, however, meant, we suppose, for daily and continued use.

Cerealis, made by Struve and Co., Brighton, is an effervescent beverage, the basis of which is said to be barley-water, alone, or mixed, we understand, with a small quantity of extractum carnis. It is called "a nutritious, stimulating, non-alcoholic beverage for invalids." It is very pleasant and soft to the palate, is certainly not lowering, and may be safely recommended.

Phosphodone, sent to us by H. Skinner, of Exeter, is also an effervescent drink, said to contain "hypophosphites of

iron, etc., for invigorating the nerves and brain." It also is very pleasant to the taste, and refreshing; but it must be remembered that it is a *medicated* beverage, and therefore not to be taken quite as an ordinary table-water.

A NEW FOLDING STETHOSCOPE.

MESSRS. EVANS AND WORMULL, of 31, Stamford-street, Blackfriars, S.E., have brought out a new and very convenient folding stethoscope. The slender hollow stem is of metal, while the broad ear-plate and the small chest-end are of ebonised material; and a ball-and-socket hinge allows the stem to be folded perfectly flat by the ear-piece for the convenience of carriage, without impairing the conducting power of the instrument, or allowing any part of it to get loose or out of order. We have tested the stethoscope well, and have found it decidedly useful and worthy of recommendation. It can be carried quite well and safely in the pocket.

A NEW CLINICAL THERMOMETER.

WE have received from Messrs Ferris and Co., of Bristol, a new clinical thermometer, which is especially commendable for two or three reasons. The register of it is formed by a long column of mercury instead of by a detached short portion, the mercurial column remaining above the constriction in the tube instead of retreating within the bulb. The capillary column of mercury is magnified into a broad band by a special shaping of the surface of the glass opposite the index readings. And each instrument is marked, on the stem, with the corrections to be applied to the scale readings, determined by comparison with the standard instruments at Kew. The thermometer will be found very trustworthy and convenient.



MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 2:—

Black, Robert, 15, Lewisham High-road, New Cross.
De Quadros, Michael Anthony, Elliot's-row, Southwark, S.E.
Haigh-Brown, Clarence Wm., Charterhouse, Godalming.
Lea, Francis James, Downside, Bath.
Sutton, John Bland, 37, Canonbury-square, N.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Watson, William, Guy's Hospital.
Lovegrove, Thomas Ernest, St. Bartholomew's Hospital.

At the Preliminary Examination in Arts, held at the Hall on January 26 and 27, sixty-eight candidates presented themselves, of whom thirty-six were rejected, thirty-two passed and received certificates of proficiency in general education, viz.:—In the First Class—Mr. Mortlock. In the Second Class (in alphabetical order)—

F. C. Augear, G. P. Brownlow, J. F. Chauveau, A. W. Cooke, A. C. Dove, F. Dymoke, M. M. Edwards, A. R. F. Evershed, W. D. Gimson, T. A. Grieves, B. A. Hamp, A. G. Hendley, H. R. Henley, J. G. Johnson, Richard Jones, Henry Lotz, A. C. J. Macann, A. J. Macnab, C. Manby, F. E. Marshall, Henry Cecil Morris, F. B. Morse, W. H. Moyle, R. M. Peill, J. K. Prescott, C. T. Quiller, E. Somerset, F. Stamper, W. H. Timms, J. P. Watkins, W. B. Wedgwood.

The following candidates likewise passed in Elementary Mechanics, viz.:—

G. P. Brownlow, J. F. Chauveau, S. A. Grieves, C. Mortlock, and F. Stamper.

APPOINTMENTS.

** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

SYKES, JOHN F. J., M.B., L.R.C.P., M.R.C.S.—Visiting Physician to the Infirmary for Consumption and Diseases of the Chest and Throat, Margaret-street, Cavendish-square, W.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—The undermentioned Staff Surgeons have been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet, with seniority as stated against their names:—Henry Macdonnell, January 28, 1882; Edward Jones Butler, B.A., M.D., January 30, 1882.

BIRTHS.

FINLAY.—On February 3, at 21, Montague-street, Portman-square, W., the wife of David W. Finlay, M.D., of a son.
GILCHRIST.—On February 1, at 11, Park-village East, Regent's Park, the wife of Campbell Gilchrist, M.D., of a daughter.
HOBSON.—On January 30, at Lower Addiscombe-road, Croydon, the wife of John M. Hobson, M.D., of a son.
PEARCE.—On February 7, at Hurstpierpoint, the wife of Henry Pearce, M.R.C.S., of a daughter.
PLETTS.—On February 7, at Kent House, Ryde, Isle of Wight, the wife of J. Menham Pletts, M.D., of a son.
POWELL.—On January 31, the wife of W. Powell, M.R.C.S., etc., 1, Segrave-place, Cheltenham, of a daughter.
WATNEY.—On February 5, at 1, Wilton-crescent, the wife of Herbert Watney, M.D., of a daughter.

MARRIAGES.

BEEVOR—LEADAM.—On February 7, at St. Marylebone, Charles Edward Beavor, M.D., to Blanche Adine, third daughter of the late Dr. Leadam, of Mortimer, Berks.
BROWN MATHERS.—On February 2, at Lambeth, R. Gibson Brown, M.R.C.S., of Brixton, to Emily Harriet, younger daughter of the late J. W. Matbers, Esq., of Brixton.
HOCART—BEATTY.—On February 2, at Notting-hill, Benjamin Hocart, Esq., of Southport, Lancashire, to Sarah Coulson, eldest daughter of Thomas Carlyle Beatty, M.R.C.S., of Seabam Harbour.
PRONGER—PUXON.—On February 7, at Croydon, Charles Ernest Pronger, L.R.C.P., M.R.C.S., of Barnstaple, North Devon, to Editb Frances, eldest daughter of Edward William Puxon, Esq., of Wintons, Croydon.
SANDBERG—CLIFFORD.—On February 2, at Brixton, Arthur Gregory Sandberg, M.D., of 234, Brixton-road, to Ethel Caroline, daughter of Frederick Clifford, Esq., of the Middle Temple, barrister-at-law.
SEALY—CAVE.—On February 2, at Rome, Charles C. Cave, Esq., eldest son of L. T. Cumberbatch, M.D., of Cadogan-place, London, to Constance Margaret, fourth daughter of the Rev. William Sealy, late rector of New Alresford, Hants.
WESTWOOD—BURLAND.—On January 30, at Waterloo, Henry Owen Westwood, L.R.C.P., L.R.C.S., L.S.A., of Prees, Shropshire, to Constance, fourth daughter of C. Burland, Esq., of Waterloo, Liverpool.

DEATHS.

BADDELEY. PAUL FREDERICK HENRY, F.R.C.S., late Indian Horse Artillery, at Eastbourne, on January 26, in his 75th year.

BODINGTON, GEORGE, L.R.C.P., at Sutton Coldfield, Warwickshire, on February 5, aged 82.
 CLAPHAM, JOHN, M.R.C.S., L.S.A., at Thorney, near Peterborough, on February 7, aged 74.
 COOPER, WILLIAM, M.D., at Fillebrook Lodge, Leytonstone, on February 4, aged 72.
 DALY, MAURICE ST. GEORGE, youngest child of Frederick H. Daly, M.D., at 185, Amhurst-road, Hackney Downs, on February 4, aged 14 months.
 FLETCHER, JOHN SHEPHERD, M.D., at Hope House, Kersal, Manchester, on February 4, in his 60th year.
 HEY, EDWARD, L.R.C.P., House-Surgeon to the Nottingham Dispensary, at St. Andrew's Vicarage, Derby, on January 31.
 JENKS, GEORGE SAMUEL, M.D., F.R.C.P., at 18, Circus, Bath, on February 7, in his 93rd year.
 JOFF, Surgeon-Major JAMES, M.D., Deputy Inspector-General of Hospitals, at 3, Royal-terrace, Edinburgh, on February 3.
 PERIGAL, BEATRICE MARY DE ST. LEU, daughter of Arthur Perigal, M.D., at New Barnet, on February 6, aged 11 weeks.
 PHILIP, Rev. Dr., M.D., at 41, Via della Croce, Rome, on February 3.
 SHEARS, ARTHUR, M.D., at Tobago, West India, on January 6, aged 39.
 STEWART, FREDERICK M. H., only son of Frederick George Stewart, M.R.C.S., at 5, Essex-villas, High-road, Lee, on February 5, aged 1 year and 9 months.
 UNWIN, WILLIAM, M.R.C.S., at 1, Marchmont-gardens, Richmond, on February 2.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Candidates must be registered to practise in medicine and surgery, and acquainted with the Welsh language. Applications, with testimonials, to be sent to the Secretary, on or before February 11.

RADCLIFFE INFIRMARY, OXFORD.—Junior Resident Medical Officer. (For particulars see Advertisement.)

ROTHERHAM HOSPITAL.—Resident House-Surgeon. Candidates must be members of the Royal College of Surgeons of England, and Licentiates of the Society of Apothecaries, or of the Royal College of Physicians of London. Registered and unmarried. Preference will be given to those candidates who have held the office of House-Surgeon or Assistant House-Surgeon in a large hospital or infirmary for at least twelve months. Applications, with testimonials as to professional ability and moral character, to be sent to John Barras, Hon. Secretary, on or before February 23.

ST. BARTHOLOMEW'S HOSPITAL.—Surgeon and Assistant-Surgeon. Applications, together with testimonials, must be forwarded to Wm. Henry Cross, Clerk, on or before February 14. Candidates are requested to attend on February 16, at eleven o'clock precisely, when a Committee of Governors will meet to receive their applications and testimonials, also on March 2, at twelve o'clock, when the election takes place.

ST. BARTHOLOMEW'S HOSPITAL, CHATHAM.—Resident Assistant House-Surgeon. Candidates must be registered medical practitioners. Applications, stating age, with testimonials, to be sent (under cover) to the Clerk to the Trustees, addressed to the Trustees of St. Bartholomew's Hospital, endorsed "Application for Assistant House-Surgeon," on or before February 13. All particulars can be obtained of Messrs. Hayward and Smith, Solicitors, Rochester.

ST. MARY'S HOSPITAL AND THE MANCHESTER AND SALFORD LYING-IN HOSPITAL, ETC., QUAY-STREET, MANCHESTER.—Medical Gentleman. (For particulars see Advertisement.)

THE BRITISH LYING-IN HOSPITAL, ENDELL-STREET, W.C.—Honorary Physician. Candidates must be Fellows or Members of the College of Physicians, or have a degree in medicine of one of the Universities of the United Kingdom. Applications, with testimonials, etc., should be sent to the Chairman of the Board of Management, on or before February 13.

UNION AND PAROCHIAL MEDICAL SERVICE.

** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Clutton Union.—Mr. C. H. Collins has resigned the Chew Magna District; area 12,795; population 4360; salary £66 per annum.

Llanfyllin Union.—Mr. T. B. Barrett has resigned the Guilsfield District; area 14,462; population 2558; salary £40 per annum.

Bodmin Union.—Mr. J. B. Brereton has resigned the First District; area 12,412; population 2141; salary £32 per annum.

Manchester Township.—Mr. J. Daniel has resigned the office of Resident Assistant Medical Officer at the Crumpsall Workhouse. Salary £140 per annum and residence.

Wisbech Union.—The office of Medical Officer for the Seventh District is vacant: area 11,042; population 1803; salary £25 per annum.

APPOINTMENTS.

Hailsham Union.—John Woods, F.R.C.P., M.R.C.S., to the First District.

St. Mary (Islington) Parish.—Christopher St. John Wright, M.B., M.C. Aber., M.R.C.S. Eng., L.S.A., to the Workhouse and Infirmary.

Stroud Union.—George T. B. Watters, M.D. Edin., L.R.C.S. Edin., to the Stonehouse District.

Chapel-en-le-Frith Union.—William S. Anderson, M.B., C.M. Glasg., M.R.C.S. Eng., to the Chapel-en-le-Frith District. Theobald E. Jones, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Workhouse.

West Ashford Union.—Philip Ballard, M.R.C.S. Eng., L.R.C.P. Lond., to the Fourth District.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 4, 1882.

BIRTHS.

Births of Boys, 1338; Girls, 1337; Total, 2775.
 Corrected weekly average in the 10 years 1872-81, 2815.1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	988	1035	2023
Weekly average of the ten years 1872-81, } corrected to increased population ...	972.2	973.4	1945.6
Deaths of people aged 80 and upwards ...	...	...	77

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	668993	...	10	1	4	32	...	3	1	4
North ...	905877	...	5	7	8	22	...	7	...	...
Central ...	281793	...	1	1	3	14	1	2	...	1
East ...	692530	...	4	3	...	61	...	1	...	4
South ...	1265578	13	16	9	3	65	1	9	1	6
Total ...	3814571	13	33	21	18	194	2	22	2	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	30.310 in.
Mean temperature ...	...	...	...	...	...	33.7°
Highest point of thermometer ...	...	...	...	...	...	49.3°
Lowest point of thermometer ...	...	...	...	...	...	24.8°
Mean dew-point temperature ...	...	...	...	...	...	34.1°
General direction of wind ...	...	...	...	...	...	Variable and calm.
Whole amount of rain in the week ...	...	...	...	...	...	0.17 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Feb. 4, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Feb. 4.	Deaths Registered during the week ending Feb. 4.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		Weekly Mean of Daily Mean Values.	In Inches.	In Centimetres.
London	3891078	2775	2023	27.1	49.3	24.8	36.7	2.61	0.17	0.43
Brighton	109573	73	65	31.0	49.6	30.6	39.6	4.23	0.12	0.30
Portsmouth ...	129875	91	66	26.5	...	...	...	...	...	...
Norwich	83821	63	40	23.5	...	...	...	...	...	...
Plymouth	74449	46	48	32.2	54.0	37.6	44.7	7.06	0.44	1.12
Bristol	210134	146	63	16.4	51.5	29.5	39.9	4.39	0.24	0.61
Wolverhampton .	76755	53	37	25.2	47.2	25.5	37.1	2.84	0.50	1.27
Birmingham ...	403532	316	174	22.2	...	...	...	...	...	...
Leicester	126275	100	42	17.4	49.8	28.0	39.0	3.89	0.27	0.69
Nottingham ...	193573	157	75	20.2	43.8	26.3	37.4	3.00	1.38	3.51
Derby	83587	55	26	16.2	...	...	...	...	...	...
Birkenhead ...	86582	43	47	28.3	...	...	...	...	...	...
Liverpool	560233	394	301	28.0	48.7	28.7	38.5	3.61	0.48	1.22
Bolton	106767	78	59	23.3	...	...	...	...	...	...
Manchester ...	340316	252	143	21.9	...	...	...	...	...	...
Salford	184901	152	89	25.2	...	...	...	...	...	...
Oldham	115572	58	37	16.7	...	...	...	...	...	...
Blackburn	106460	84	47	23.0	...	...	...	...	...	...
Preston	97656	69	45	24.0	...	...	...	...	...	...
Huddersfield ...	83418	43	41	25.6	...	...	...	...	...	...
Halifax	74713	42	12	8.4	...	...	...	...	...	...
Bradford	188101	102	75	20.8	46.0	27.6	36.9	2.72	1.16	2.91
Leeds	315998	224	158	26.1	47.0	25.0	37.6	3.12	1.57	3.98
Sheffield	293516	218	119	21.4	50.0	27.5	37.0	2.78	1.99	5.04
Hull	158857	94	71	23.3	45.0	27.0	36.3	2.39	0.91	2.3
Sunderland ...	119065	92	54	23.7	47.0	30.0	39.9	4.39	0.13	0.3
Newcastle	147626	109	57	20.1	...	...	...	...	...	...
Cardiff... ..	83724	74	28	16.9	...	...	...	...	...	...
For 28 towns ...	8455308	6006	4042	24.9	54.0	24.8	38.5	3.61	0.72	1.8
Edinburgh	232440	131	86	19.3	50.9	31.4	39.7	4.23	0.21	0.5
Glasgow	514048	378	221	22.4	49.5	28.0	39.5	4.17	0.36	0.9
Dublin	348293	198	251	37.6	51.7	27.1	41.2	5.11	0.53	1.3

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30.31 in. The lowest reading was 29.87 in. on Sunday evening, and the highest 30.52 in. on Tuesday evening.

APPOINTMENTS FOR THE WEEK.

February 11. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Prof. E. Paucr, "Ludwig van Beethoven."

13. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. K. Parker, "On the Morphology of the Mammalian Skull." Lect. IV.
MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. Dowse, "On Some Points in the Differential Diagnosis of Intracranial Disease, General Paralysis of the Insane, and Tabes Dorsalis." Dr. Braxton Hicks, "On Cases of Abdominal Tumours, clinically interesting."

14. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
ROYAL INSTITUTION, 3 p.m. Professor John G. McKendrick, "On the Mechanism of the Senses."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY (Ballot, 8 p.m.), 8½ p.m. Mr. T. M. Girdlestone, "On the Surgical Uses of Kangaroo Tendons." Mr. Henry Morris, "Notes on Two Cases of Unreduced, and on Two Cases of Reduced, Dislocation of the Hip."

15. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Midlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Reginald Thompson.
ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. K. Parker, "On the Morphology of the Mammalian Skull." Lect. V.
SANITARY INSTITUTE OF GREAT BRITAIN, 7½ p.m. Mr. H. C. Burdett, "On the Administration and Hygiene of British Hospitals." The Paper will be followed by a Discussion.

16. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.
ROYAL INSTITUTION, 3 p.m. Dr. P. L. Sclater, "On the Geographical Distribution of Animals."
HARVEIAN SOCIETY, 9 p.m. Dr. Stephen Mackenzie, "On Cases of Peliosis Rheumatica." Dr. Thin, "On the Principles and Practice of Treatment of the more Common Diseases of the Skin."

17. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.
ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. K. Parker, "On the Morphology of the Mammalian Skull." Lect. VI.
ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Professor John G. McKendrick, "On the Breathing of Fishes."

RHEUMATISMAL POTT'S DISEASE.—Professor Potain (*Journal de Méd. Pratique*, November) indicates a variety of Pott's disease, described in a thesis by M. Pouliot under the name of Rheumatismal Spinal Disease, which admits of a more favourable prognosis than other varieties of the affection. The predisposition is produced by the arthritic diathesis, the spinal localisation being induced by cold or violent efforts expended especially on the vertebral articulations. Pains first occur in the spinal column, accompanied by irradiations, tingling, and convulsive movements of the limbs. Then deformity of the spinal column is observed, consisting generally in anterior curvature, other rheumatic symptoms also occurring at the same time or alternately with the spinal symptoms. Paraplegia comes on gradually, but its progress is very slow, and abscess by congestion is exceptional. Resorted to in time, treatment may be followed by excellent results, and consists chiefly in powerful revulsives, especially the actual cautery, accompanied by immobilisation.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

* * We greatly regret that an obituary notice of Sir Robert Christison, and several other pressing articles, are again unavoidably postponed for want of space.

Mr. C. Foster, Leeds.—Much better leave the matter as it is. Neither the judge nor the jury seem to have been endowed with too much common sense.

Dr. Chundar Coomar Day, 152, Amhurst-street, Calcutta.—Letter received with thanks.

Statistician.—1. The result of the census of St. Petersburg, taken on December 27 last, just published, shows the total population is calculated at 861,900. The last census was in 1869. That now taken discloses an increase of 29 per cent. in the intervening twelve years. 2. It was in 1871 for the first time the census was taken, not only of the United Kingdom, but of the whole British Empire.

A Competitor, Boulogne.—There were five essays sent in, and as each has to be read by the members of the Jacksonian Committee, the decision will not be announced so soon as you expect.

The Town Council of Conway and the Board of Trade.—An unusual dispute has occurred between these authorities as to the ownership of the foreshore. The Local Government Board had sanctioned plans for a new drainage scheme, which involved the utilising of the foreshore, but the Board of Trade demands payment for the use of the foreshore, which the inhabitants claim as vested in them under their ancient charter. The Council having declined to recognise this claim, the Local Government Board has withdrawn its sanction for the loan proposed to be advanced by the Public Works Loan Commissioners towards carrying out the scheme. A similar claim has been set up at Beaumaris where the scheme has already been in abeyance for two years.

G. J. F.—Touching gout the great Sydenham consoled himself with three satisfactory reasons:—1. That more wise men had it than fools. 2. More rich than poor. 3. That it was more incident to men of strong than of weak constitutions. Some wise men think it dangerous to cure gout, and Shakespeare, who had a good notion of physic, says in *Cymbeline*—

"One that's sick o' the gout had rather
Groan so in perplexity, than be cured
By th' sure physician Death."

Nat. Bayswater.—Vaccination was adopted in Denmark in 1801, and made compulsory in 1810.

A Medical Artist.—We have several artists of acknowledged skill in the profession, as Sir Henry Thompson, Mr. Prescott Hewett, Mr. Seymour Haden, Mr. Lumsden Propert, Dr. Lennox Browne, and others. Most of us may have believed that the days were past when, to use the words of Sir Thomas Browne, "Mummy has become merchandise, and Pharaoh is sold for balsam"; nevertheless, artists still use that peculiar kind of bitumen which is called mummy, and Messrs. Roberson and Co., of Long-acre, are much in want of an ancient Egyptian to be ground down—bones, cerements, and all,—and put by in ounces in compressible tubes.

B. B., Tottenham.—The Medical Benevolent College, Epsom, was opened in 1855 by the Prince Consort.

Donor.—Although, according to the "Classified Directory," the annual income of the London charities still reaches the sum of £4,121,546, to which there are to be added the incomes of many institutions which do not make returns. The annual receipts of these metropolitan charities have fallen during the last three years by nearly £81,000, and this diminution has mostly affected the medical charities and establishments, which, more than others, depend on voluntary contributions.

General Traders selling Poisons.—The Carmarthen magistrates have fined a local postmaster and a village grocer 20s. each, for selling red precipitate without having the name and address of the seller displayed on the packets. The Bench advised Welsh tradesmen to leave the sale of poisons to chemists and druggists. Wholesome advice!

O. L., Holloway.—Workmen's clubs, when properly conducted, afford opportunities for amusement and rational recreation, as well as for educational improvement, and are then highly praiseworthy. Albeit, many so-called "workmen's clubs" are, as is well known, very undesirable institutions. The Camden and Kentish Town Working-Men's Club and Institute, just inaugurated, provides, we understand, counter attractions to those which may be designated the "free and easy" associations. This new club is to be held in a "coffee-palace."

A Fellow, Liverpool.—The annual election of Fellows into the Council of the College of Surgeons always takes place the first Thursday in July. The election of President takes place the following Thursday. There is plenty of time.

Embalming.—Edmond Phillips received £40 4s. 8d. for embalming the body of Thomas Sutton, the benevolent founder of the Charterhouse.

Prize Essay.—The Académie des Sciences has been presented by M. Dugate with 50,000 fr., the interest of which is to be spent from time to time as a prize for the best essay on some subject concerning the "good of humanity." In 1884 the prize will be given for the best and fullest treatise on that old subject—the surest means of ascertaining death and preventing premature burial.

J. S. S.—No woman has been executed for infanticide for certainly between thirty and forty years.

Medical Candour.—The following is not so bad as a story:—A famous surgeon advises one of his patients to undergo an operation. "Is it very severe?" asks the patient. "Not for the patient," says the doctor; "we put him to sleep; but very hard on the operator." "How so?" "We suffer terribly from anxiety. Just think!—it only succeeds once in a hundred times."

A Demonstrator.—To soften and clean a sponge, the late Professor Partridge recommended a teaspoonful of the liq. sodæ chlorinat. in half a tumblerful of water; wash and rinse well.

Smoke.—In 1847 a general Town Regulation Act contained a provision for factories to consume their own smoke. The Act for smoke abatement was passed in 1853, and extended in 1856. The Sanitary Act of 1866 prohibits the allowing of black smoke to issue from chimneys in such quantity as to be a nuisance. The Public Health Acts for England, Scotland, and Ireland, passed respectively in 1867, 1875, and 1878, contain similar prohibitions. But chimneys of private dwelling-houses are excepted from the operation of all these statutes.

Archæologist.—It is said that Sir Theodore Mayerne (buried at St. Martin's-in-the-Fields) took lessons from Sir Walter Raleigh in medicine. Rev. George Crabbe, the poet, was apprenticed to Mr. Page, a surgeon, at Woodbridge, Suffolk, where he was born.

An Irish Food Industry.—According to the *Grocer*, there never was such a scarcity of butter in Ireland as there is at present. In former years both farmers and merchants held stocks for the months of January, February, and March. But last season was so disastrous that very few could keep any stock of butter on hand, and it is now discovered on the appearance of any demand that there are no supplies to meet it. This bareness of the Irish markets is shown by the fact that large quantities of Danish and American butter and butterine are being imported for local consumption.

Electricity in America.—It is stated that the career of electricity now embraces electric soap and bricks.

G. P. P., Rochester.—It may be said that to the successful experiment of training Protestant nurses at Kaiserswerth, in Germany, by a poor pastor, and to Miss Nightingale's example and efforts in England, are owing the numerous (not Roman Catholic) orders and societies of deaconesses and sisters, and the schools for nurses, all over the world, particularly in England and in America.

A Healthy District.—In the parish of Kilmallin, containing a population of 2373, including the burgh of Fort William, there have been only fifty-two deaths for the year ending December 31 last.

Diluting Wine: France.—At a meeting attended, it is said, by 3000 wine merchants and keepers of wine shops, held at the Cirque d'Hiver, in Paris, to protest against the severity of the laws on what, in the slang of the great wine market at Bercy, is called "wetting" (*mouillage*)—that is diluting—it was resolved to petition the Chambers, praying that the penal regulations now in force should be reserved for cases of adulteration where it was injurious to health. The law treats dilution as adulteration, a crime punishable by fine, imprisonment, placarding of offender's name, and even deprivation of civil rights. The wine merchants wish *mouillage* to be deemed a mere breach of contract, which, on its discovery, should cancel sales.

Ablution.—To the peasant, the Russian bath—a moist variant of the Turkish Bath, now familiar to us—is "a second mother." It is recorded that Peter the Great, when he was advised by foreigners to introduce hospitals and dispensaries into Russia, was wont to reply that Russians needed nothing else while they had baths as a health-giving remedy against mortal ills.

Teetotaler.—The Gin Act was passed in 1736. It was meant to restrain the people from their excessive indulgence in Geneva, or gin, and was a virtually prohibitory Act, 20s. being charged on each gallon sold by the retailer, and £50 being the price of a licence to retail the liquor. So far from checking the evil against which it was aimed, it only led to the increase of frauds on the revenue, and of drunkenness, and to rioting. In 1743 it was found necessary to frame another Bill, "by which a small duty was laid on the spirits at the still-head, and the price of licences reduced to 20s.

Common Lodging-houses, Edinburgh.—The Town Council, after some discussion on the by-laws, has resolved, among other points, to increase to 400 cubic feet the amount of space per head to be insisted on in common lodging-houses.

Literary.—It is stated that Professor Huxley is engaged on a work on Bishop Berkeley and his contributions to medical and mental science.

Another Football Casualty.—In a game of football played a few days since at Westhoughton, a gentleman delivered a kick of a "scientific" character to another gentleman—which broke his leg.

COMMUNICATIONS have been received from—
THE EDITOR OF THE "LIVERPOOL JOURNAL OF COMMERCE," Liverpool; THE EDITOR OF THE "BRITISH MEDICAL JOURNAL," London; Mr. CRAIGIE, London; THE SECRETARY OF THE SANITARY CONGRESS EXHIBITION, London; Dr. GALABIN, London; THE DIRECTOR OF THE ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND; Dr. BOZEMAN, New York; THE WINDERMERE HYDROPATHIC COMPANY; THE SECRETARY OF THE APOTHECARIES' HALL, London; Mr. JOSEPH WEISS, Vienna; Dr. CREIGHTON, London; Mr. R. BRUDENELL CARTER, London; Mr. J. CHATTO, London; Mr. JAMES DIXON, Dorking; THE SECRETARY OF THE HARVEIAN SOCIETY, London; Dr. F. WARREN, London; Dr. MAYO ROBSON, Leeds; THE SECRETARY OF THE SOCIETY FOR THE ABOLITION OF VIVISECTION, London; Mr. RICKMAN GODLEE, London; THE SECRETARY OF THE NATIONAL PROVIDENT INSTITUTION, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; Mr. CLARENCE FOSTER, Leeds; THE SECRETARY OF THE MEDICAL SOCIETY, Manchester; THE MEDICAL OFFICER OF HEALTH, St. Pancras; SURGEON, Netley Hospital, Southampton; Messrs. DOMET and Co., London; Professor DE CHAUMONT, Netley Hospital; Dr. J. W. MOORE, Dublin; Dr. ALEXANDER JAMES, Edinburgh; Mr. R. W. PARKER, London; Messrs. HOPCRAFT and Co., London.

BOOKS, ETC., RECEIVED—

The Real Position of Rubella Rötheln, or German Measles, etc., by G. E. Shuttleworth, M.D.—Practical Exercises in Physiology, by Dr. Burdon Sanderson—Quarterly Report on the Health of the Borough of Birmingham, ending December 31, 1881—Report of the Proceedings of the Fifth International Pharmaceutical Congress—The Prevention of Syphilis, by J. W. White, M.D.—The Plague Spot—Howell v. West and Jones—St. Bartholomew's Hospital Reports, vol. xvii.—Annual Report of the Torquay Local Board—Sessional Proceedings of the National Association for the Promotion of Social Science.—The Philosophy of Advertising—Report on the City Day-Census, 1881—The International Encyclopædia of Surgery, vol. i.—The Life and Work of St. Paul, by F. W. Farrar, D.D.—Pyæmia and Septicæmia, by Ambrose L. Ranney, M.D.—History of Medicine in Massachusetts—Recherches Cliniques et Anatomopathologiques sur les Affections Cutanées, par Henri Leloir.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Gazzetta degli Ospitali—Centralblatt für Gynäkologie—La Presse Médicale—Monthly Homœopathic Review—Veterinarian—Birmingham Medical Review—Ophthalmic Review—Leisure Hour Extracts—Zeitschrift Diagnostik und Therapie—Boy's Own Paper—Practitioner—Friendly Greetings—Girl's Own Paper—Sunday at Home—Medical News—Physician and Surgeon—Tijdschrift voor Geneeskunde—Weekblad—União Médica—Nottingham Daily Guardian, February 7.

THE VIOLET MENACED.—The charming violet is in its turn menaced with destruction, like so many other vegetable productions, for the plantations on the Rhone are being ravaged by an epidemic. An almost imperceptible spot shows itself on the blue of the petals from the period of their blowing, and rapidly extends. The flower becomes colourless and dried up as if devoured by a galloping consumption. This is supposed to be due to the ravages of a microscopic insect, which makes no distinction between the Parma violet and the common violet.—*Union Méd.*, February 2.

SANITARY CONGRESS AND EXHIBITION.—Last week a deputation from the Sanitary Institute of Great Britain, consisting of Professor F. S. B. F. De Chaumont, M.D., F.R.S., Chairman of the Council, Mr. G. J. Symons, F.R.S., Professor W. H. Corfield, M.A., M.D., Chairman of the Exhibition Committee, the Secretary, and the Curator of the Exhibition, met the Mayor and Sanitary Committee at Newcastle-on-Tyne, to make arrangements for the Congress and Exhibition which is to be held by the Institute in that town in the autumn of this year. Several buildings were visited, and suitable ones selected for the various meetings and the Exhibition. The Congress and Exhibition will be opened on Tuesday, September 26.

SORE NIPPLES.—Dr. Favre distinguishes two kinds of this lesion—fissures and erosions—and, believing that the latter are much induced by the modern tight-fitting dresses and the pressure of the corset, warns pregnant women against this mode of procedure. As a means of treatment he recommends the sprinkling the sores with bismuth, or employing this as an ointment, in the proportion of two drachms to half an ounce of vaseline. In some cases, twenty-four hours' application of this means has removed all suffering, and allowed suckling to be resumed.—*Petersburg. Med. Woch.*, January 28.

ORIGINAL LECTURES.

CLINICAL LECTURE ON RENAL CALCULUS.

*Delivered at the Middlesex Hospital,
February 20, 1880.*

By SIDNEY COUPLAND, M.D., F.R.C.P.,
Physician to the Hospital. (a)

GENTLEMEN,—The subject of *stone* is one that affords, perhaps, more scope to the clinical lecturer in surgery than in medicine. For in surgery it has claimed attention from all time; and it is bound up with the fascinating and ancient operation of cutting for stone in the bladder, which used to be practised by men outside the profession, by whom, indeed, it was regarded as an occupation degrading and unfit for its respectable members to practise. But it is not of this operation, or indeed of the details of any operation, that I purpose to speak—it would be beyond my legitimate function, and also beyond my powers to deal with. What I purpose to do is to show you that the subject of calculus has a wide interest on its purely medical side. It is to the physician that the cases of this affection often come earliest under notice; and it may remain for the medicine of the future to show the way to surgery in leading to such measures of anticipatory treatment as may cut short the duration of a long, painful, and dangerous disease, and possibly diminish the number of cases of stone in the bladder that now come under view.

For there can be no doubt that the majority of urinary calculi, which sometimes attain so large a size after their lodgment in the bladder, are primarily formed in the pelvis of the kidney. Even in new-born infants, deposits of uratic salts have been met with in the substance of the organ; and you may remember that, on the last occasion I addressed you, we dealt with a remarkable case, in which the effects of a renal calculus in infantile life were demonstrated. It happens that that case will bear much on what I have subsequently to say, and I shall refer to it again before the close of this lecture. The case, however, with which I am immediately concerned is one that has been under observation in our medical wards on more than one occasion, and is now in Regent ward, having last week undergone an important operation at the hands of Mr. Morris.

The patient in question, Maria M., a servant-girl, nineteen years of age, was admitted into Seymour ward on April 3, 1879, and discharged on May 27, 1879, having presented symptoms of renal calculus. She was readmitted on October 13, with similar symptoms, and again discharged relieved on November 3; only to be once more admitted—first into Murray, and then into Northumberland ward—on December 29. We have the records of her previous history taken independently by Messrs. King, Deane, and Canton; and although there is, of course, substantial agreement between the accounts, by putting them all together we are enabled to arrive at a very full and accurate history of the case.

I propose, then, to relate the case to you, and to give you the symptoms that were observed on each occasion. I shall point out to you how these symptoms told in favour of the diagnosis arrived at, and shall discuss alternative hypotheses on this head. I then purpose to speak briefly upon what we may call the natural history of calculus—its causes, varieties, and effects; and then I shall direct attention to the various methods of treatment of renal calculus and their *rationale*: my main object being to advance such arguments as I can in favour of early operative measures, although the *modus operandi*, the justifiability of surgical interference, and the issue of cases so treated, I shall leave to be discussed by him who is the more qualified to deal with this side of the matter.

(a) The case which formed the text of this lecture has already been published in the *Clinical Society's Transactions* (vol. xiv., page 30) by my friend and colleague Mr. Henry Morris; but as the general bearing of the subject, from the physician's point of view, seems to me so important, I have ventured to publish this lecture, delivered when the case was under treatment.

There is nothing of any importance in her family history. There is no mention of any hereditary tendencies to gout or calculous disorders, although her father is subject to "lumbago." Her parents and six out of nine children are alive and well. The patient had no serious illness until she was about fifteen years old, when she had an attack of "erysipelas," followed by mild scarlet fever; but long before this she experienced symptoms referable to the disease for which she was admitted into the hospital. We learn that from the age of eight or nine she has had pain in the right loin, long attributed to "growing pains." The pain sometimes was severe; it was paroxysmal—darting across the back, and down the hips; when at its worst she experienced nausea, even to slight vomiting. It continued until about September, 1878, its severity reached its acme, and she felt chilly; so that she attended a metropolitan hospital, and was blistered, but got no relief, and threw up her situation in consequence. One account makes mention of some puffiness of face and "sponginess" of legs about this time. Her menstrual functions were regular. She noticed that when the pains were most severe—and they were always aggravated when she was hard at work—her urine became dark, as if it contained blood, but its quantity was not noticeably altered; then she came here on April 3.

She is a well-nourished, rather stout, short girl, with ruddy cheeks and slightly pallid mucous membranes; her skin is very harsh, dry, and scaly, especially on the limbs, but more or less over the whole trunk and face. She told me it had always been so. It is a condition which in a more extreme degree would be called ichthyosis—always a congenital state. On her first admission she was complaining of paroxysmal pain in the right side of the abdomen, keeping her awake at night; and was passing urine of a deep red colour, giving a dark reddish-brown deposit, and containing blood and albumen (one-fifth). There was no tenderness or resistance at the seat of pain. Her face seemed slightly oedematous; and she had cough and shortness of breath, explicable by slight bronchitis.

On April 4 the urine was of specific gravity 1010, slightly smoky. On the 5th it still contained blood, and on the 7th was free from it. The history of her symptoms is not very varied. She still had attacks of pain, sometimes very severe, and the urine contained blood and albumen at times, and at other times none at all. Warm baths gave her relief, and iron and some alkalies were given. No pyrexia ever occurred, but her appetite was bad. She left the hospital on May 27.

The transition from the rest and quiet of hospital life to the busy and arduous labours of domestic service soon brought back all her troubles—her life was rendered intolerable; and on October 13 she came in again. The pain in the loin had never left her; and more than once she noticed the water became thick and red again.

The urine on her second admission contained much blood intimately mixed. The pain was of the same character, and sometimes prevented her sleep at night. A week after, in the hospital, the blood ceased to appear in the urine, which was examined microscopically by Mr. Palmer, who found no casts or crystals; but a trace of albumen was met with more than once.

On leaving the hospital on November 4, she went to Epping Convalescent Home, and a fortnight after her arrival there she again noticed blood in her urine. Her pains also recurred, and once more she came into the hospital.

Apart from these symptoms and the ichthyoid condition of skin, she seemed a healthy enough girl. She complained only of this intolerable recurrence of sharp, shooting pain in the right loin; and her urine was almost the colour of porter, so highly charged was it with blood. It was acid, but contained no other renal derivatives than the blood. Slight pain was complained of when firm pressure was made in the right loin, and although there was much adiposity, I fancied I could feel the kidney.

The temperature and pulse were normal. On December 31 the urine still contained blood; but the next day it was free from it, there being, however, a trace of albumen; but it was clear and free from deposit.

Day after day she complained of the pain in the side, sometimes severe, but mostly aching, and not markedly expressed in her features. Even when she was allowed to get up and walk about the ward (perhaps a rather harsh

experiment, for it seemed to increase her pain), the urine still remained free from blood, the last occasion on which it reappeared being January 26, when the albumen was about one-twentieth. On the 28th it was free from blood. She took citrate of lithia, eight-grain doses, from January 6 onwards.

Let us consider now the question of diagnosis. There do not seem to be many facts at our disposal; but they are sufficient. I will recapitulate them.

Localised pain in the region of the right kidney, sometimes passing downwards to the thigh, or else across the back, occurring paroxysmally more or less for ten years, with increasing frequency and severity during the past two years, notably influenced by movement and active occupation—so much that her ordinary duties were hampered, and life rendered miserable, by the attacks. She used to say that as long as she was perfectly at rest she felt no pain; but this was not strictly accurate, for sometimes her nights were disturbed by its occurrence.

Then, bearing some relation to this, inasmuch as it was always at its height, when she came into the hospital, there was hæmaturia; and hæmaturia of undoubtedly renal origin. The blood was diffused equally throughout the urine; it came from the pelvis or from the kidney itself, and the local pain and tenderness pointed to the right kidney as its source.

Pain in the kidney, or nephralgia, may owe its existence to many causes. The first and simplest is that which is accompanied by a loaded state of urine, where the imperfect oxidation of nitrogenous materials taken in by the food stops short of the formation of urea, and leads to a greater excretion than normal of lithic acid and its derivatives, of which oxalic acid has been proved to be one. In that case, as a rule, the pain is of a dull, aching character in both loins, the digestion is deranged, and the bowels are torpid. Undoubtedly such a condition may be the precursor of calculous formations, and it is intimately related to the gouty state. But in it the urine is loaded with lithates, and hæmaturia is not a symptom.

The presence of hæmaturia points, indeed, to a more advanced affection, and, in association with the unilateral character of the nephralgia, we must look to lesion of one kidney to account for it.

I think we may expunge all idea of a simple *neuralgia* of this kidney or its surroundings, although I would not deny the existence of such an affection. But the passage of blood takes the case out of that category.

On the other hand, the curious and interesting disease called "*paroxysmal hæmatinuria*" must not be considered at all in connexion with this case. For although, to be sure, the presence of blood in the urine was most paroxysmal and intermittent in its occurrence, yet it was *blood*—actual corpuscles, and not mere hæmatin—that appeared; not to mention the fact that no other symptoms or any other facts in the history pointed to this affection.

Congestion of the kidney there undoubtedly was; but mark that it was congestion of *one* kidney only, and if there was any actual nephritis (of which we have no clear evidence) it was unilateral and required a local cause.

It seems, then, that we are narrowed to organic causes affecting the right kidney—limited, in fact, to new growths or to calculus.

The pain and the hæmaturia are consistent with the diagnosis of a *new growth*—say a papillary villous growth in the pelvis of the organ; for a cancerous tumour it could not be, looking at the nutrition of the girl. But are the facts of the case, when analysed, consistent with it? Assuredly not. The long duration of the symptoms, and, above all, the very intermittent character of the discharge of blood—a discharge distinctly related to movement,—put it out of court.

So that you see the case presented symptoms which could hardly be well explained except on the view of *renal calculus*. They were symptoms excited by the mechanical effects of the stone.

Now, although in medicine we often have to rely upon symptoms alone in making a diagnosis, we are bound to avail ourselves of every means by which we can establish such diagnosis with certainty. In the case of the thoracic organs, we avail ourselves of physical signs to inform us of the condition underlying a dyspnoea, a cough, a hectic fever and expectoration. Similarly we import, so far as we can, physical signs into the examination of the abdominal organs,

ascertaining by percussion and palpation such changes in shape and size as they may have undergone. The kidneys are the most difficult (setting aside the supra-renal capsules) of all the abdominal viscera to be examined by these means, the difficulty being, of course, enhanced when the subject is stout. The right kidney lies, in great part, concealed by the liver; but in thin subjects it is not difficult to grasp the organ and feel its rounded surface. If there be any tumour in it, of course it is the more readily perceived; and you remember the cyst we mistook for spleen, on the left side, in the case we had three weeks ago. Palpation through the abdominal wall to detect a renal calculus would be a matter of great difficulty; I am not sure whether it has ever been done. But there is a method of palpation which was introduced some five years ago by the late Professor Simon, of Heidelberg, which has proved very successful, not only in the diagnosis of stone in the kidney, but in other affections of the abdominal organs. It consists in the passage of the whole hand and arm through the anus and into the rectum. With a comparatively slender hand, and steady, continuous pressure, this may be effected where the subject is well under the influence of anæsthetics. The sphincter may be stretched considerably without any injury to it by this means; and once the hand is introduced into the rectum, the arm has no difficulty in following. Of course, such a procedure requires the greatest caution. Before, then, asking the surgeon to make an exploratory incision over the kidney, it is right to avail ourselves of this method of examination, or at any rate to attempt it. Accordingly, on February 2, the bowel having been thoroughly washed out by enema, the patient was put under the influence of chloroform, and I made an attempt to examine her kidney by this means. In spite of steady and prolonged pressure, I found it impossible to insert my hand beyond its widest part, and I desisted from the attempt. I did so the more readily because of the probably greater difficulty in reaching the right than the left kidney, although I believe Simon has done this, and has felt liver and gall-bladder. And then I was guided also by recent statements that an exploratory incision was not a dangerous operation, made under the precautions of modern surgery; and besides, the incision made for purposes of exploration would also allow of the removal of the calculus at the same time, supposing such calculus to exist. The patient, too, was most willing that some radical measure should be adopted. She knew well what her sufferings had been during the past two years: how unfitted she was for active life; and it seemed hard not to give her the chance of relief that such a measure would afford. Ten days were allowed to elapse, and the nephralgia not abating, although the hæmaturia did not return, she came to the operating theatre—with what result you know. Mr. Morris cut down on the kidney, felt a calculus, and removed it. The stone weighed thirty-one grains, was triangular in shape, its two cornua evidently fitting into a calyx, the smooth faceted surface being that which must have been exposed in the pelvis to the action of the stream of urine. The calculus is of the mulberry variety, studded with mammillations; and, looking at it now, we cannot wonder at the urgent symptoms it produced.

It can hardly be said that we are as yet in perfect possession of all the facts bearing on the etiology of calculous disease. Setting aside the rarer formations—as cystine, xanthine, carbonate of lime,—I shall limit myself to those which are more common: uric acid, urates, oxalate of lime, and phosphates. In the first place, there seems to be an undoubted proclivity to the formation of calculi in some districts as compared with others. In our own country the Eastern Counties stand pre-eminent, and the Norwich surgeons have been famous in the annals of lithotomy. But as contrasted with other countries, England presents a comparatively large prevalence of the disorder, which also occurs in France, Iceland, Egypt, and the Netherlands, and also in India, under conditions of climate and soil wholly different; whilst in Sweden and Norway it is a rare disease. The idea that its prevalence in some districts over others is due to the drinking of water highly charged with lime salts, does not seem to be thoroughly borne out.

Often in individual cases there is an hereditary tendency to such formations. The conditions leading to gout and gravel have long been known to be so transmitted, and it is conceivable that the same conditions of defective transformation of nitrogenous matters that underlie gout, favour the

production of acid urine, excess of and deposit of urates. But it is curious that a stone may be formed without the urine showing an abnormal excess of its constituents. Since the days of Prout, up to within quite recent times, the discharge of oxalic acid in the urine was held to denote a peculiar diathesis. But chemistry has shown that oxalic acid, and its allies, oxalates, may be derived from uric acid; and there is no real ground for creating a distinction between the two conditions.

The association of cutaneous disease with renal calculus has been sometimes noticed. In view of the intimate alliance between the functions of the skin and kidneys, such an association is conceivable; and I may remark that we have it strikingly illustrated in our present case.

The majority of renal calculi—about five-sixths—are composed of uric acid, which sometimes may be very numerous. They are oval or rounded, minutely mammillated, and vary in colour according to the admixture of pigments with them.

Urates, generally of ammonia, are softer, and are soluble in hot water; but it is seldom we find a stone wholly composed of them.

Oxalate of lime seldom purely composes a calculus; it generally is combined with urates. It forms concretions of varying size, solitary or multiple; the surface is usually so rough and irregular as to form the "mulberry calculus" *par excellence*; and it is mostly brownish or brownish-black, from altered blood-pigment—for its very hardness and angularity cause this form of calculus to be that which produces the most severe symptoms in the way of pain and hæmorrhage.

Phosphatic calculi are rare as primary formations, except perhaps those of phosphate of lime. But frequently a small calculus of uric acid or of urate of ammonia becomes encrusted with phosphates, either in the pelvis of the kidney or in the bladder. As a rule, this deposit may be looked on as the result of alteration in the urine due to destructive inflammation of the kidney.

Sir Benjamin Brodie gives in his lectures the case of a gentleman who voided some renal calculi of oxalate of lime. Some time afterwards symptoms of renal disease set in, and, a year after the passage of the first calculus, he passed one of phosphate of lime, and ultimately died of extensive disease of the kidney.

It has even been said that the oxalate formation can only take place in a kidney previously diseased; but this view, I think, is no longer tenable.

A blood-clot or mass of inspissated mucus may be the starting point of a calculus. It may form its nucleus, and around it the salts are deposited. All calculi, indeed, have an organic as well as an inorganic basis; and we see by sections the various layers of deposit, resembling in the microcosm of the human organism the strata of deposits in the rock formations of our mother earth.

From this hasty sketch of the nature of calculi, let me pass to consider their effects on the organism. This is, perhaps, the most important point of all, and to it I direct your most serious consideration.

Many (one may say, perhaps, the majority of) calculi escape into the bladder when yet they are of small size. Their passage is frequently accompanied by the severe and agonising pain known as renal colic. The passage is long, but the pressure of urine behind the stone not only aids its onward progress, but stretches the ureter behind it, and in that way may slightly aid in the transit indirectly. But there are calculi which, formed in the calyces, do not become so readily dislodged, or are not dislodged until they have attained so great a size as to be unfit to pass the narrow channel. What happens then? Obviously a calculus cannot lodge anywhere in the renal organ without producing some effects.

If it be stationary, in a calyx, these effects will be comparatively unimportant; they will tell only on that segment of the organ immediately above the calculus: the pyramidal and secreting structure will waste, for its function is destroyed; and the stone may become encysted and harmless. But the chances are against so latent a course of things. A sudden exertion or movement may dislodge the stone; it will fall into the pelvis, and dam its outlet, wholly or partially, or may form a sort of ball-valve, so that the urine can only escape intermittently when so much has accumulated as to force a passage past the obstruction. All the while, too, the calculus is receiving accretions, and the kidney and the lining membrane of its sac is suffering. If the calculus be,

as it often is—and this is especially the case with an oxalate of lime, calculus—rough and mammillated, severe mechanical injury will be produced on the pelvic lining membrane. At first, especially on movement, the stone will so injure the membrane as to cause hæmorrhage, and blood may flow into the urine in considerable quantities. It is likely also that the kidney itself may suffer from congestion, and a calculous nephritis be set up.

But the effects of this local irritation do not cease here. The congested and inflamed condition passes on, under the continued presence of the irritant, to suppuration, and abscess in the kidney and suppurative pyelitis supervene. Add to this the further effect of the mechanical obstruction itself, and you see how a large abscess full of pus is formed, how the renal tissue itself gets gradually destroyed, and how a mere sac full of pus remains. I remember a case where a woman presented a fluctuating tumour in the right loin. Every now and then a discharge of pus in large quantity took place in the urine, and the tumour subsided, then gradually refilled, and so on. In this case—and there are many like it—I have no doubt there was a pyonephrosis due to impaction of a calculus in the pelvis, and the intermittency of the discharge depended on its valve-like action.

Sometimes, after years of suffering, the inflammation involves the tissue around the kidney, and an ulcer forming in the loin, may open spontaneously, and discharge pus and calculi too. This is nature's cure, and it has been of late helped by the surgeon cutting into the abscess. But it is a satire to speak of this as a *cure*, for the organ itself is wholly past redemption; and too often the constitution is so undermined by the long-continued suppuration, that death is not far delayed—by amyloid disease, or in other ways.

Then there is the condition of which we had so good an example last time. You remember how we traced the hydronephrotic kidneys to a calculus formed early in life; how that calculus found its way into the bladder, and was duly voided, but not before it had wrought such damage on the renal apparatus that, when she came to die, one kidney was shrivelled to the size of a supra-renal capsule, and the other contained only a little damaged secreting tissue. I attributed all this change, directly and indirectly, to the calculus; and if this be true, how satisfactory it would have been could the calculus have been gotten rid of in early life!

Then remember, that although a person may live and enjoy life with only one kidney, still that organ diminishes his chances of existence. For I have seen a case here where one kidney having been reduced to a mass of fibrous tissue from previous calculous disease, death occurred from suppression of urine in early adult life, by the blocking of the opposite ureter with a second calculus.

Remember that it does not require a large stone to produce all these effects,—remember that a stone may find its way into the bladder, but not until it has destroyed the kidney,—and you will perhaps concur more readily in what I have still to say.

On the matter of treatment, I will speak first of medicinal measures. Dr. W. Roberts has done good service in directing attention to the benefit derived by the administration of alkaline carbonates and the citrates in diminishing the acidity of the urine, in freeing it from the deposit of gravel, and in some cases in getting rid of the symptoms of renal calculus, apparently by solution of the uric acid stone. As to its effect in clearing the urine laden with lithates, we have almost daily evidence. Over and over again, in the out-patient room, I have seen this result follow the administration of alkalis—an administration which should not be too long continued, owing to the depressing effects of these remedies. Dr. Roberts has, however, kept the urine alkaline for months together without noticing any deleterious effects. But when it comes to be a matter of dissolving a calculus, the mere mechanical effects of which we have seen lead to such grave results,—when we know that it must take years in its solution,—we may well pause before submitting a patient to such long-continued treatment. And in the case of oxalate calculi there seems to be no solvent which is applicable to them in the kidney. The differential diagnosis of the kind of calculus is not easy, but with a clear urine, with oxalate crystals, and severe symptoms, the chances are in favour of its being one of this variety.

In view, then, of the undesirability of temporising until the calculus should be passed down the ureter with great

suffering, and possibly after irretrievable damage has been done to the kidney,—in view of the long time necessarily required for the solution of a calculus by rendering the urine alkaline,—it seems almost desirable that, if it can be done with safety, the radical measure of removal of the stone from the kidney itself should be undertaken. The idea is as old as the hills, but it has been discountenanced for fear of the risk entailed. Are we to set this risk (which the knowledge of recovery from wounds to the kidney has proved to be small) against the chances of years of pain, and almost certain destruction of an organ? Brodie says: "Some of the old surgeons have spoken of an operation by excision for the extraction of calculi from the kidney. The proposal is absurd and dangerous, if made with a reference to ordinary cases of renal calculi, where no abscess exists. But nephrotomy (as it has been termed) may be practicable where nature, by the formation of an abscess, has pointed out the exact situation of the calculi, so that they may be felt with a probe."—"Works," vol. ii., page 570.)

But if nature was always to have her way, where would surgery be? and our patients also? Dr. W. Roberts says: "Incising the kidney through the loins, and extracting the offending calculi through the wound (nephrotomy), is a method of treatment as old as the time of Hippocrates. It is, however, not recommended by modern surgeons, except when suppuration has taken place, and the abscess is manifestly pointing in the loins."—"Urinary Diseases," second edition, page 473.) The writers in "Reynolds' System" (vol. v., page 586) say of nephrotomy: "This operation is only admissible when an accumulation of pus has pointed externally, and it has become necessary to open this."

Now, if it can be shown that the operation, *per se*, is one which is free from danger, surely it is incumbent on us, after due and careful consideration, after obtaining evidence which warrants a diagnosis of renal calculus, to call in surgical aid, and that early enough to insure the restoration of its function to the organ, to anticipate its disorganisation, or the troubles that accompany and follow the descent of a calculus into the bladder. But we must proceed cautiously, and on intelligible and rational grounds, not incurring the reproach of rashness on the one hand, nor allowing matters to proceed too far by our own timidity or delay on the other.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

By DR. McCALL ANDERSON,

Professor of Clinical Medicine in the University of Glasgow;
Physician to the Western Infirmary, and to the Special Wards for Diseases of the Skin.

LECTURE IV.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

(Continued.)

III.—FUNCTIONAL AFFECTIONS OF THE SEBACEOUS GLANDS.

A.—Due to Retention of Sebaceous Matter.

UNDER this head two affections fall to be described, viz.—1. Comedones; and 2. Miliun.

1. *Comedones* (Worms, Grubs).—These may be found wherever sebaceous follicles exist, but occur much most frequently upon the face, and next to this upon the shoulders, upper part of the front of the chest, and penis. In the first mentioned situation they give rise to much annoyance owing to the disfigurement, which may be considerable, even although they do not produce inflammation (*Acne*). The affected parts are more or less abundantly studded with black spots, about the size of a millet-seed or smaller, situated at the orifices of the sebaceous follicles, which are due to the retention of hardened sebum in the dilated ducts. On squeezing out the contents of the follicle a worm-like plug of sebum makes its appearance, which is whitish in colour except at the point that is exposed to the air and blackened by admixture with particles of dust.

On microscopic examination of the plug, it is found to be composed of oil globules and epithelial cells; often many minute hairs, too, are discovered, and frequently the *Acarus*

folliculorum.(b) *Comedones* are often combined with *seborrhœa fluida* (post), and very frequently they lead to the affection afterwards to be described under the name of *acne*.

2. *Miliun* (*Grutum*—*Strophulus candidus et albidus* of Willan and Bateman).—This affection is due to obliteration of the glandular orifices, and consequent retention of sebaceous matter in some of the glands, which open into hair follicles, and Bärensprung has seen it at the edges of cicatrices which have obliterated the orifices of the glands. Little, round, slightly elevated, pearly-white spots, about the size of a millet-seed or larger, are scattered over the surface in variable numbers. They may occur wherever there are sebaceous follicles, but are principally met with on the face, especially near the eyes and on the eyelids; and it is only when they are numerous that they give rise to deformity, and our advice is sought. On section of the upper wall, the contents of the miliun are easily expressed, and are found to consist of sebaceous matter, mingled with epithelial cells, often with crystals of cholesterine, and in rare cases with calcareous matter containing carbonate and phosphate of lime. It will thus be seen that there is no difficulty whatever in the diagnosis.

B.—Due to Deficient Secretion of Sebaceous Matter.

This condition is met with in association with many morbid states, such as *Marasmus* and *Diabetes*; it is also apt to occur on the hands during cold weather, especially if they are often washed with hard water, leading to the annoyance popularly denominated "chapped hands," but one which can generally be prevented by always anointing them freely with Price's glycerine before drying them, which keeps the skin soft and elastic.

Under this head only one disease demands a detailed description, viz.:—

Ichthyosis (*Xeroderma*—*Fish-skin Disease*).—In this complaint we find a hypertrophy of the epidermis as well as, to a greater or less extent, of the papillæ of the corium, combined with defective action both of the sebaceous and sudoriparous glands. It is often hereditary, usually sets in before the second year, and generally increases in severity till adult life is reached, when it tends to remain stationary. It is more a deformity than a disease, but is apt to involve the greater part of the body—the soles, palms, axillæ, and flexures of the joints, however, generally escaping; the face and head also not unfrequently remain unaffected, or are only slightly involved; while it is worst, as a rule, on the extremities, especially on the extensor surfaces of the joints, which even may be the only parts attacked. In the milder forms (*I. simplex*) the skin is dry, coarse, wrinkled, dirty-looking, and scaly, and in severe cases the parts least affected may retain this character throughout. In the latter the appearance of the scales is very characteristic, although it varies in different persons, as well as on different parts of the same person. Sometimes the surface presents some resemblance to the skin of a serpent (*I. serpentina*); sometimes the scales are thicker, larger, and more brilliant, but varying in colour from a greyish-white to black (*I. nigricans*), according as the patient is cleanly or the reverse. In rare instances they form actual bristles (*I. cornua*, *I. hystrix*—*Porcupine Disease*), one of the most remarkable of which is to be found reported in an extract from the minutes of the *Philosophical Transactions*, March 16, 1731, vol. xxxvii., page 239, and in the first part of vol. xlix. of the *Transactions*, at page 21. In typical cases it occasionally happens that the whole of the skin is shed from time to time.

C.—Due to Excessive Secretion of Sebaceous Matter.

Seborrhœa (*Stearrhœa*—*Acne sebacea*) is the name usually applied to this complaint, which may assume one of two forms.

(b) The *Acarus folliculorum* was discovered by Henle in 1841, and in the following year by Gustav Simon in the sebaceous follicles. Their precise seat has been demonstrated by means of sections of the skin after death, when they were found for the most part to lie lengthwise in the hair follicles in the midst of the sebaceous matter which they contain, and near the surface of the skin, their heads being directed inwards. They vary considerably in size, in shape, and in the number of their legs—variations which are supposed to represent different stages of development. It might be supposed that they have some connexion with comedones or with that inflammatory affection of the sebaceous follicles termed *acne*; but repeated investigations have led to the conclusion that, while they feed upon the sebaceous matter, they give rise to no irritation whatever, for it has been distinctly proved that they are met with more or less in the sebaceous secretion of all persons—just as constantly, although perhaps not in such abundance, in persons the functions of whose skins are normal, as in those who are the subjects of *acne*.

1. *There is too Abundant Secretion of Sebaceous Matter in the Fluid Form* (*S. fluida*, *S. oleosa*).—This may be observed wherever there are sebaceous glands. It may be general, but more frequently it is localised, and is oftenest observed upon the face, especially upon the nose and brow. The affected skin has a glistening, oily look and feel, while the orifices of the gland ducts are very patent, and soft white plugs of sebum can readily be expressed from them. It is a frequent accompaniment of the disease afterwards to be described under the name of *Acne*, and also of the first stage of *Elephantiasis Græcorum*. It is comparatively rarely met with in infants and in old people, but is often observed at puberty and during adult life. When it implicates hairy parts it is very apt to cause matting of the hair, which, when occurring in an aggravated form and neglected, is favourable to the development of that peculiar affection of the hair known in Central Europe under the name of *Plica polonica*.

2. *There is too Abundant Excretion of Sebaceous Matter in the Solid Form* (*S. sicca*).—In this variety the sebaceous matter dries up into crusts of varying size and thickness. At first they are thin, white, and easily detached; but later, if neglected, they assume various shades of yellow, brown, or even black (*S. nigricans*), (c) become much thicker, and often adhere firmly to the subjacent skin, owing to processes extending downwards into the patent gland ducts. The skin beneath the crusts is healthy or congested, but it is rarely the seat of much itching, and is never infiltrated; the crusts, too, present this peculiarity—that they are not brittle, like ordinary crusts, but can be kneaded into a ball almost like wax.

Almost the whole of the body may be invaded, as may be seen in the case of new-born infants, who are covered with white sebaceous matter (*Vernix caseosa*—*Smegma*); but this is rare as a pathological process, when it is almost always localised, the seats of predilection being the head, face, and genitals.

Seborrhœa Sicca of the Head (*S. capitis*) appears in the shape of polygonal crusts, at first thin and white, later thick yellow or brownish. It occurs most frequently in infants up to the second year, but is often met with in adults—frequently in connexion with menstrual disorder. In adults it is usually less severe than in children, but the head feels hot, and the hair often falls out in great abundance.

Seborrhœa of the Face (*S. faciei*) is principally met with in very dirty people, but it frequently appears (*Hebra*) after attacks of variola, when the crusts cover the whole face like a mask. Generally, however, it is limited to the *alæ nasi*, cheeks, or brow, and when so localised the skin beneath and at the edges of the crusts is usually reddened and oily. The orifices of the glands, too, are unusually gaping, and corks of sebum are easily expressed from them.

Seborrhœa of the Genital Organs (*S. genitalium*).—This occurs between the labiæ in the female, and in the fossa behind the glans penis in the male; in these situations the white sebaceous matter accumulates, and is very apt to undergo decomposition. It then exhales an offensive odour, and sooner or later irritates, excoriates, and inflames the affected parts.

The following tables will be found of service in the diagnosis of *Seborrhœa sicca* :—

<i>Seborrhœa Sicca.</i>	<i>Pityriasis (Chronic Erythema in the scaly stage).</i>
1. Crusts not brittle; can be kneaded into a ball like wax.	1. Scales brittle; cannot be kneaded into a ball.
2. Crusts consist of sebaceous matter and a few epithelial cells.	2. Consist almost exclusively of epithelial cells.
3. As a rule, little, if any, redness under crusts.	3. Skin beneath scales more or less inflamed and reddened.
4. No itching, as a rule.	4. Itching usually present.

The same characters help to distinguish *Seborrhœa sicca* from *Chronic Eczema* in the scaly stage (*Eczema squamosum*), but, in addition, in *eczema* the skin is infiltrated, and generally there is a history of serous exudation upon the surface (weeping), which is never observed in *seborrhœa sicca*.

Seborrhœa Sicca.

1. Crusts consist of sebaceous matter, and can be kneaded into a ball.
2. Skin beneath crusts is oily; but little (if any) redness.
3. Never followed by cicatrices.
4. Constitution sound.

Seborrhœa Sicca of Genitals.

1. History of neglect of cleanliness.
2. Generally surface not ulcerated, only excoriated.
3. Secretion not inoculable.
4. No tendency to bubo.

5. Yields readily to cleanliness; separation of parts with lint, and mild astringent lotions.

Lupus Erythematoses.

1. Scales consist chiefly of epithelial cells, and cannot be kneaded into a ball.
2. Skin beneath scales dry, and dusky-red or violet in tint.
3. Cicatricial appearance left.
4. Constitution strumous.

Soft Chancres.

1. History of exposure to infection.
2. Ulcers which have the characters of soft chancres (see Syphilitic Affections).
3. Secretion inoculable.
4. Often bubo, which suppurates and yields inoculable pus.
5. More tedious, and often require the use of strong caustics, etc.

ORIGINAL COMMUNICATIONS.

THE

ATTRIBUTES, PROFESSIONAL AND SOCIAL, OF THE SO-CALLED "FAMILY DOCTOR."

*Being the Annual Oration, delivered Wednesday, Feb. 8, 1882,
Before the Hunterian Society.*

By ROBERT FOWLER, M.D.

MR. PRESIDENT AND GENTLEMEN,—On Thursday, February 9, 1826, your first Orator, who had been your first President, and also was your first honorary member—Sir William Blizard—prefaced his Oration in these words :—

"Had he duly considered that in his preparative labour on the occasion, the most formidable interruptions from imperative calls of public duty would happen, he must have declined the assigned task, but his obligation to the performance of it appeared irrevocable."

Such sentiments have, probably, passed through the minds of each and all of your Orators during the last fifty-six years.

The knowledge that the members of a Society such as this are men who can appreciate the significance of the words, "imperative calls of public duty," emboldens your present Orator to anticipate a sympathetic indulgence to these efforts of a busy co-worker.

This Society, Sir William told his hearers, "sprang from the purest motives of honourable men."

They who, as members of this Society, remember the professional and social bearing, the character of Dr. William Cooke—the type of what should be the family doctor—can readily recognise this truism. They can easily understand that "with Dr. Cooke's firm intention" and "unremitting zeal" he would never have proposed the establishment of this Society on any other basis.

The influence which all scientific associations have had on the great progress of our art and science during the present century, has been ably commented on by most of my predecessors in office—some elucidating it by reference to the advancement of medicine in general, whilst others have contented themselves in demonstrating the improvement in that specialty to which they were particularly devoted.

The high importance, moreover, of the social characteristic of this Society in particular has also, on more than one occasion, been truthfully and eloquently eulogised.

Acknowledging, therefore, as we safely may, the benefits this Society, with other like associations, has conferred on all within its circle during more than a decade beyond half a century, it would seem more profitable now to ask, Have we, the agents in the application of this improvement to suffering humanity, ourselves also advanced *æquo pede* in all

(c) An interesting case of this kind is to be found in the *Medico-Chirurgical Transactions*, vol. xxviii., page 611.

those attributes essential to the honest and honourable cultivation of our noble profession?

Can every one of us conscientiously affirm that we to-day are actuated with the self-same "honourable motives" alleged by our first Orator to have been the ruling spirit of the founders, our predecessors in membership?

It would, however, be absurdly invidious and unseemly, trenching, indeed, upon the personal, to confine an inquiry of this character solely to the members of the Hunterian Society. I extend my investigation far beyond our own numerical sphere. I will endeavour in the time at my disposal to broadly, but pertinently, portray what should, in my opinion, be the attributes, professional and social, of the trusted medical attendant in the family domestic circle.

More than two-thirds of the present members of this Society belong to that great class (numerically considered) of general practitioners.

Of the one-third of consultants who are ordinary members, more than half the number have migrated westwards. The residential population of this immediate neighbourhood is annually decreasing. The attractions elsewhere of societies appointed solely for the consideration of the so-called specialities of medicine entice certain devotees. It may therefore be considered as almost a tolerable certainty that the very vitality of this Society will more and more have to rely in the future upon that largely preponderating class of medical men of whom we have, fortunately for my illustration, so excellent and worthy a representative this day in our Presidential chair.

Our present art and science, calling to their elucidation the aid of each and all of the accessory sciences, doubtless necessitate more than ever the continuance of that primary threefold separation in our ranks which has for so many years obtained. The very perfectness and minuteness of detail now thought essential in the study of every disease furthermore also obviously augment the still increasing subdivision in the practice of those we desire to look upon as the leaders in our profession.

Nevertheless, the exigencies of our English domestic circle will, in all probability, always demand the care and supervision of the so-called family doctor.

In discussing what should be the attributes, professional and social, of the trusted medical attendant of at least nine-tenths of the whole population, I am, I believe, but portraying the type of what should be the character of every "practiser in the Faculty of Physick"—be he general, consultant, or special.

Prior to 1511 the science and cunning of physick and surgery were "daily within this realm exercised by a great multitude of ignorant persons," who are otherwise very quaintly described, in the preamble of the first(a) Act of Parliament relating to our profession.

To those who read aright the history of our Faculty—at all events, in this country—there can be little doubt but that long after the reign of Henry VIII. the so-called physicians were really the analogues of those who for some years have been, and are now still, styled the "general practitioners," or "family doctors," who would therefore appear to have been the very first body of medical men who received legal recognition from our English Parliament.

These early physicians—as did their predecessors the monks and clergy, who were necessarily the first practitioners in this country—practised medicine, surgery, and pharmacy; and in this body of practitioners this "Act for appointing physicians and surgeons" appears to have been vested the Faculty of Medicine.

The word "physician" would seem to signify, one who practises physick. Dr. Goodall, in his "Epistle Dedicatory," appended to his "History of the Royal College of Physicians" (1684), more than once styles his "most Honoured Colleagues" "practisers in the Faculty of Physick"—the name given in their charter(b) to all practisers, whether "illiterate" and "unexperienced," or "learned, grave, and profound."

By the wisdom of the Parliament of the great Henry, the following comprehensive definition was given to the word "physick":—"And forasmuch as the science of 'physick' doth comprehend, include, and contain the knowledge of surgery, as a special member and part of the same;

therefore be it enacted, that any of the said company or fellowship of physicians being able, chosen, and admitted by the said presidents and fellowship of physicians, may from time to time, as well within the city of London, as elsewhere within this realm, practise and exercise the said science of physick in all and every his members and parts; any Act, statute, or provision made to the contrary notwithstanding."(c)

Thus legalising the axiom of Celsus, which was thought and practised by Hippocrates:—"Illud ante omnia scire convenit, quod omnes medicinæ partes innexæ sunt, ut ex toto separari non possint."

The celebrated author—your quondam no less celebrated Orator—who, in 1879, gained the first Carmichael Prize, awarded by the Council of the Royal College of Surgeons of Ireland, is, therefore, I think, somewhat too narrow in his implication, that the definition given in 1703 by Queen Anne's Lord Chief Justice Holt of the word "physic" applies only to that branch of our profession which is now recognised as the province of our modern physicians.

The signification, then, unanimously agreed upon by the Court of Queen's Bench in the action of the case of the College of Physicians v. Rose is as applicable to every part as to the whole of the science of physick; and in no way invalidates the comprehensiveness of the definition laid down by Henry's Parliament.

It is no part of my purpose to give you a complete history of the College of Physicians, nor to comment unnecessarily on the exclusiveness and pedantry which lost this powerful "commonaltie" the opportunity of assimilating to themselves the whole body politic of the practisers of physick.

Suffice it to say, in reference to this important section of one of the early medical Acts of Parliament, that "the joyning together the two companies of barbers and surgeons," in 1542,(d) clearly constituted a body of men who were simply and solely employed to perform operative or mechanical duties.

The College of Physicians fifty years afterwards, namely, in 1595, proved that by this section of their early Act they could successfully prosecute, fine, and commit to prison a surgeon who (not being admitted to their College, nevertheless) pleaded that in his art the use of inward remedies is often necessary.

In this important prosecution by the College of Physicians, of the two surgeons, Roger Jenkins and Simon Read, the then Chief Justice gave this opinion (*inter alia*), "No surgeon, as a surgeon, may practise physick, no, not for any disease." As late even as 1633, the College of Physicians succeeded in enforcing a judgment of fine against "one George Butler, who, under colour of being sworn an extraordinary chirurgeon to His Majestie (James I.), did take upon him to give physick and practise chirurgery without either skill or licence."

They in power were in fact determined to confine the control of all that pertains to the Faculty of Physick to "the President and Censors for the time being of our College of Physicians in London."

Dr. Goodall's work conclusively illustrates the power and patronage bestowed upon the College in Charles I.'s reign.

No empiric could practise operative surgery, and no chirurgeon could administer internal remedies, even in surgical cases, without being proceeded against by the College of Physicians.

It was not indeed till fifty years ago that this latter power was successfully resisted by the practising surgeons.

In the seventeenth century the Crown applied direct to the collective wisdom of the College itself, to solve any doubt in cases of medical jurisprudence—not as in more recent times by a reference through the Home Secretary to some titled leader in our profession, who may or who may not be specially skilled in all the bearings of the case referred to him.

In 1632 the College of Physicians in London were lawfully assembled, by the command of their sovereign lord the King, to determine whether a certain Joseph Lane did or did not die by poisoning; and, if so, by what poison his death was procured.

The outcome of the determination of the College in this matter eventuated in the expression of a very valuable opinion respecting the sale of poisons. This opinion, how-

(a) 3 Henry VIII., c. ix., "An Act for the appointing of Physicians and Surgeons."

(b) 8th October, 15, Jac. 1 preamble.

(c) 32 Henry VIII., c. xl., sect. 3. (d) 32 Henry VIII., c. xlii., sect.

ever, did not bear any legislative fruit for over 200 years. The "decree to His Sacred Majesty," concerning the death of Joseph Lane, concluded with these commendatory words:—"That no person presume to sell drugs, either poisonous or dangerous, to poor sorry women or poor people (which hath been too common), but only to those who are willing to give their names; that if there should be occasion they may give an account of the reason of their buying these dangerous medicines." The Bill to regulate the sale of poisons, and alter and amend the Pharmacy Act, became law on July 31, 1868.

Clause 17 enacted, *inter alia*, that the poison sold should be labelled "with the name and address of the seller" thereof.

In Charles I.'s time, the College of Physicians did certainly not prohibit its members and fellows from practising, at all events, operative midwifery.

Divers ancient midwives petitioned the College of Physicians to protect them from the molestation of a certain doctor of physic, who threatened not to assist in any difficult case unless the attendant midwife had been previously licensed or approved of by him.

In their answer to the petition the physicians admit that the said "doctour is not otherwise able to instruct them [the midwives] than any other the meanest fellow of our College, unless he understand it by the use of iron instruments, which physicians and chirurgeons may practise if they please; and some do, and have done, with as good success and dexterity as himself, and therefore there is no necessity for a sole dependence upon him."

It is painful to recall the fact of the systematic ignoring by the College of Physicians, in after years, of the claims of the practisers in this important branch of our art. I would now simply remind you of the sequence, that on March 18, 1852, the Royal College of Surgeons of England obtained power by Charter not only to appoint a special board of examiners "for the purpose of testing the fitness of persons to practise in midwifery," but also "to grant certificates of such fitness."

Until the passing of the Medical Acts of 1815, and subsequently 1858, it does not indeed appear that the great power conferred on the Royal College of Physicians of London was in the least abrogated, abridged, or altered by any legislation subsequent to the time of the Stuarts. In his elaborate judgment, given in 1861, on the case of the Attorney-General (on the part of the Society of Apothecaries) *v.* The Royal College of Physicians, his Honour Vice-Chancellor Page Wood (the late Lord Hatherley) admitted that no Act of Parliament had been cited to or was known by him which conferred on the College of Surgeons the "particular privilege of selling drugs when they are dealing with a case surgically," although "he believed from authorities" (e) (which he did not, however, quote) "that a surgeon could recover in respect of drugs which he furnishes in pursuance of his attendance in a surgical case."

In the Royal Charter granted by James I. to the College certain words certainly imply and point out that up to that period the physicians or practisers in the said "Facultie of Physick" did "administer or prescribe" "medycine" unto their patients. "It is uncertain at what period the physicians gave up—'what was growing too servile and laborious a business'—the practice of preparing their own medicines."

In all probability, the universal practice continued till 1617, when James I. by Royal Charter separated the grocers from the apothecaries, and prohibited the former ever afterwards from keeping an apothecary's shop. Up to this period we are told that the physicians' assistants had been styled apothecaries; and it is at all events a singular circumstance that the persons first incorporated in one body politic by this Charter of James were 114, coinciding with the number of physicians who were then actually in practice in London.

There is evidence, however, that as late as 1703 certain physicians continued the practice of preparing their own medicines. In the writ of error, brought that year up to the House of Lords by William Rose, apothecary, "praying their lordships to reverse the judgment given against him in the Queen's Bench at the suit of the College of Physi-

cians," occur these words:—"That several physicians . . . lately admitted into the Colledge . . . have fallen into divers methods for monopolising the whole business of physick, both as to the compounding, selling, and prescribing thereof."

Considering the power, the patronage, the privileges, and the protection accorded by monarchs and Parliament for about one hundred years from the first Act of Henry VIII. to the Charter of James I. to the Apothecaries' Company, it does appear to have been very short-sighted policy indeed, that the College of Physicians of London did not seize the occasion and opportunity of arrogating to themselves the authoritative and unlimited control of the whole domain of the "Facultie of Physick." James's royal charter had empowered them to "make such wholesome and reasonable . . . ordinances," etc., as seemed "good, profitable, and necessary, . . . for their good rule, order, and government." They elected not to devote energies so forcibly bestowed upon them in fostering and developing the art and science of medicine as a compact and indivisible whole; but in an evil hour they thought their interests were furthered by passing by-laws to prohibit any of their licensees from the exercise of what they then considered the inferior branches of medical practice.

Without needlessly alienating from the College walls the *δὲ πολλοί*—the busy toilers in the application of physic's relief to suffering humanity—it was quite within legal competence to create a grade accessible but to the few greater intellects of the profession.

The immortal Harvey doubtless contemplated and ardently desired such an enlarged generalisation of the powers and privileges of the College. In the very last Harveian Oration delivered at the Royal College of Physicians, June 18, 1881, the Orator, Dr. Barclay, referring to Harvey's deed of gift, said of him—"He regarded the College of Physicians as a grand foundation. He looked to its future as the great centre from which the light of medical science and skill was to shed its lustre over England; was to be the teacher of her people, the adviser of her rulers, and the training-school of her medical men."

After an erroneous and unpardonable inference respecting the Act of 1815, and heedless of the maxim, *Qui s'excuse s'accuse*, Dr. Barclay, in continuation, endeavoured to shift the prime blame of the anti-Harveian "narrow and exclusive jealousy" of his College on to the shoulders of the older universities.

Long prior, however, to 1815 a Nemesis had arisen in the Frankenstein of the College's own creation. The Apothecaries, incorporated by the influence and intercession practically of the College itself, increased in number, knowledge, and power. Driven from the College walls by short-sighted and exclusive by-laws, men utilised their brain-energy in developing a medical and surgical practice under the remunerative guise of the membership of a trading guild.

The Royal College, from its self-asserted lofty pinnacle, still ignoring the comprehensiveness of its own capabilities, now sought to recall some of its lost prestige by a demonstrative jealousy and pettiness.

Inclusive of the President and Censors, fifty-three Fellows and Members, by their signatures and subscriptions, sanctioned in 1697, one of the elect of their own college opening dispensaries, whence to supply medicines on reasonable terms to their poor, and even to their wealthy patients. In Garth's satirical poem (f) the shade of Harvey thus addresses Hygeia, who has conducted Celsus (*alias* Dr. Bateman) to the Elysian Fields after the battle between the physicians and apothecaries—

"With just resentment and contempt you see
The foul dissensions of the faculty;
How your sad sickening art now hangs her head,
And, once a science, has become a trade.
Her sons ne'er rifle her mysterious store,
But study Nature less, and lucre more."

The battle, as described, had indeed waxed fierce and sharp—

"And now the staggering braves, led by despair,
Advance, and to return the charge prepare.
Each seizes for his shield a spacious scale,
And the brass weights fly thick as showers of hail.
Whole heaps of warriors welter on the ground,
With gallypots and broken phials crowned;
Whilst empty jars the dire defeat resound."

(f) Dispensary.

(e) King James, in the last paragraph of his Royal Charter to the "Apothecaries of London," confines the surgeons to the use of only external drugs in the exercise of their art.

It would be a waste of time to relate all the recriminative satire and invective which resulted from this derogatory conduct. Garth, himself a Fellow of the Royal College, thus sums up the offended feelings of the Apothecaries—

"Our manufactures now the doctors sell,
And their intrinsic value meanly tell;
Nay, they discover too (their spite is such)
That health, than crowns more valued, costs not much;
Whilst we must shape our conduct by these rules—
To cheat as tradesmen, or to starve as fools."

The puerility of the Royal College, of course, fell short of its intent and aim. The leverage of the Corporation of Apothecaries, day by day, raised to the position of general practitioners men who would, had they been permitted, have gladly associated themselves with the more weighty and more ancient edifice in Warwick-lane.

The apothecaries became, year by year, more and more general practitioners, in consequence of the increased attention which they devoted to medical and surgical practice.

(To be continued.)

THE PRACTICE OF PHYSIC IN SMYRNA.

By J. McCRAITH, M.D., F.R.C.S.,
Surgeon to the British Seamen's Hospital, Smyrna.

MY EXPERIENCE OF VACCINATION.

THOUGH now a physician of nearly forty years' experience, I have never known a child die of vaccination; but I have seen many die of small-pox by neglect of vaccination, and amongst the number a child of my own, carried off by small-pox, though not by any neglect of mine. I had been sent for to a neighbouring village to attend an accouchement in an English family, one of the children of which had been vaccinated by me some days previously, and, finding the vaccine well developed, in a healthy child, I armed some points, with the intention of vaccinating my own baby, though only twelve or fourteen days old. I had told the mother that the child should be vaccinated as soon as possible, instead of waiting for forty days, as small-pox was prevailing very generally in the city; but, upon arriving at home in the morning, I found baby with some feverishness. This turned out to be small-pox, of which the child died a very painful death—some pustules formed in the throat, the child could not swallow, and it died of hunger. Enemata of milk kept it alive for a few days, but it died exhausted. This is the only child we have lost; eight others have grown up to manhood and womanhood. During an epidemic of small-pox here, I have seen a good many children, unvaccinated, die of the disease; and I have seen two boys, twins, stout healthy children, both completely blinded by small-pox—though they had the disease in an extremely mild form—by neglect of vaccination. When a student at home, a neighbouring farmer brought me a fine boy of five or six years of age, and consulted me if he might not "inoculate" him. "All his neighbours were getting their children inoculated," he said, "and they were all having the disease very mildly." I told him to bring me the boy in a few days—that I would vaccinate him; and then he might, after the vaccine was developed, inoculate him as much as he pleased. He unfortunately did not follow the advice; he had him inoculated. The child took an extremely mild form of the disease, but a pustule formed on each eye, and he lost both—was completely blinded. I attended a patient here, some years since, who had been vaccinated by the great Jenner himself—the late Lord Carlisle, Viceroy of Ireland for many years. He had small-pox in a more or less confluent form, but got quickly well; and though vaccinated even by Jenner, and in the period when the lymph was fresh, this did not save him from the disease. It saved him, as it always does in all cases, from the consecutive or secondary fever, which has so many disastrous results, and was therefore of infinite value in his case. Even were the value of vaccination reduced to this, it would be of very great service to humanity. I believe this case goes to prove that vaccination at present is neither more nor less efficacious than in Jenner's day. The only reasonable objection to vaccination is the risk of communicating "communicable disease," syphilis, through it; but this risk may be certainly avoided if the surgeon sees and examines

the child supplying the lymph. This is an easy and simple precaution, and can always be taken in cases where the parents are timid and refuse vaccination under this fear. A *propos* of children infected by syphilitic lymph, and an occurrence of this nature in Italy some few years since, when so many were infected, I should very much wish that a strict inquiry should be made on the spot into the following points:—If in any instance a nursing mother had been infected, having nursed no other child than her own (as in the humbler classes in Italy mothers nurse in common), to elucidate "Colles's law" that an infected child cannot communicate the disease to its own mother. The teaching of this unhappy occurrence—an experiment, I may say, made to our hands—should not be lost, more especially as in all these cases the infection was foreign. In congenital cases where the mother remains free, we may explain the fact by supposing that the mother was syphilised as it were; but in the present cases, if the law holds, as in my experience it certainly does, we have no explanation to offer. The second point which may be elucidated is the comparative mortality of congenital and acquired syphilis in infant life. We have no medical libraries here, nor any means of reference, so I cannot put hands on the report existing of this occurrence in Italy.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

COMPOUND DEPRESSED FRACTURE OF RIGHT FRONTAL BONE, WITH LACERATION OF BRAIN— REMOVAL OF FRAGMENTS—ANTISEPTIC TREAT- MENT—UNINTERRUPTED RECOVERY.

(Under the care of Mr. MARCUS BECK.)

[From notes by Mr. PENROSE.]

History.—At 2 p.m. on July 20, 1881, a boy, aged twelve, was admitted under the care of Mr. Beck. Before 10 a.m. on the same day he had been kicked above the right eye by a horse. He was insensible for two or three hours after the injury, and at the end of this time had two attacks of clonic spasms which seem to have been general. He also began to show signs of returning consciousness. A wound on his forehead, which bled but little, was dressed with lint; and the boy was placed on a shutter and brought up to town by train from Leighton Buzzard, where the accident occurred.

Present State.—On admission there was a horizontal lacerated wound, about a quarter of an inch above right eyebrow, an inch and a half long. It gaped slightly, and a little brain-substance lay between its edges. The bone was depressed over an area almost as large as a half-crown; the centre seemed about half an inch below the general surface of the skull. The boy was quite conscious, and in no pain. Surface warm; face of good colour; not sweating. Pulse 100, quite regular, of good quality. Respirations 28, normal. Pupils of moderate size; right rather larger than left; both reacting well. No paralysis or twitchings.

Operation.—At 2.30 p.m., chloroform was given. The patient struggled a little, but no bleeding or protrusion of brain-substance occurred. The wound was opened, and at once arterial blood began to issue through a fissure in the lower part of depressed area. On the removal of one or two fragments on either side, a small artery—apparently meningeal—was secured easily and tied with catgut. Other depressed fragments were then removed; the largest, about an inch and a quarter by seven-eighths of an inch would have been left after elevation, had not free venous bleeding then occurred from beneath it. After its removal a torn diploic vein was found to be the source of hæmorrhage; about half an inch of it had been pulled from its bed. A ligature cut through it, but stopped the bleeding. Previous to the operation, all hair had been removed, and the parts thoroughly carbolised. The lacerated brain-substance was sponged with carbolie acid lotion (one in forty). The spray was now turned on, and the wound closed by three silver sutures, and dressed with the ordinary gauze dressing. A fine drainage-tube was inserted at the inner angle. A Thornton's cap was applied over all.

Patient was very restless, and slept but little during the night. He vomited frequently for eleven hours, and twice more during the next fourteen. He passed urine normally.

On the next morning (21st) he complained of right frontal headache; some thirst; tongue clean and moist; no paralysis; mind clear; temperature 100° to 99.6° ; pulse 116, slightly irregular in time. He had passed no urine for many hours, and could not do so. A catheter drew off four ounces, containing no albumen, but not examined for sugar. The wound was dressed, though no discharge had come through. Dressing sweet; wound looking very well. The boy slept well, but was rather restless.

On the third day he still complained of slight right frontal headache. Tongue clean; less thirst; sense of hunger; bowels not open; temperature normal from this date. On the fourth, pain in head was gone. He wrote his name fairly well; remembered nothing of his accident, and memory was otherwise somewhat imperfect. Pulse 72; irregularity in time more marked. Slept well. On the fifth, complained only of hunger; given bread and milk. Pulse 64, regular. Sight, hearing, and smell normal. He was unable to recognise sugar or salt in solution, vinegar or peppermint-water, but knew sugar on biting the grains. Dressed; no swelling; discharge slight, sweet; tube shortened. On the sixth, bowels acted after two half-ounce doses of castor oil and an enema. He said that he tasted the oil, but scarcely seemed to get its full flavour. No sugar or albumen in urine. On the seventh, taste was improved, but not perfect; pulse 68; quite lively. On the eighth, dressed, and stitches removed; almost healed on the twelfth; quite on the twenty-second.

He went out on the thirty-fifth day, wearing a gutta-percha shield. A month later no mental defect or bodily ailment could be detected. Pulsation was still plainly visible beneath the scar.

Remarks.—This case illustrates the following facts:—First, that the dangers of septic meningitis may be averted by the use of antiseptic dressings; second, that a strong solution of carbolic acid may be applied directly to the brain-substance without evil consequences; and, third, that hernia cerebri is a result of inflammatory swelling of the brain, and will not occur even when a large piece of bone is removed and the brain-substance exposed and lacerated, unless spreading inflammation supervenes. The injury occurred in a part of the brain the function of which is unknown. The only functional disturbance noted was loss of taste; but as it is very possible that a second cortical laceration may have occurred in the occipital region, opposite the point struck, no conclusion can be safely drawn from this case as to the functions of the frontal lobes. The convulsions during the first few hours were probably due to hyperæmia of the injured area, extending beyond it to the superficial motor centres during the period of reaction.

LIVERPOOL ROYAL INFIRMARY

SERIES OF HERNIA CASES

(Under the care of Mr. RUSHTON PARKER.)

(Continued from page 119.)

Case 2.—Strangulated Umbilical Hernia—Herniotomy—Fæcal Fistula—Second Herniotomy, with Closure of Fistula.

JANE O'H., aged thirty-eight, housewife, admitted June 14, 1879. The patient is very short, very stout, very florid, but of exceptionally healthy appearance; and had usually been quite well, except occasional biliousness. Three years previously she had been struck in the abdomen by a butting goat, followed shortly by umbilical pain and the perception of a swelling. She was laid up a fortnight at home and six weeks in hospital, and has had a hernia ever since. During the past three weeks the hernia had been protruding and irreducible. The bowels had been open every other day, though she had had nausea and vomiting all this period. The last stool was on the morning of admission, vomiting occurring throughout the day, and by evening becoming stercoraceous, on which Mr. Parker was sent for.

Under ether on June 14, 1879, herniotomy was performed under carbolic acid spray, a swelling about the size of an orange being cut into. The sac was adherent to the skin in some parts, and filled with omentum, which completely sur-

rounded the neck, and hid in its midst a knuckle of small intestine, congested, and at one part abraded. This was with difficulty returned, and the omentum was tied with many ligatures of carbolised silk. Sutures, drain, and Lister's gauze dressing were used, and the patient never had a bad symptom, the diet being carefully restricted, and opium administered as required. The bowels were moved on the third day, and at convenient intervals afterwards. A piece of skin, adherent to the sac, and itself cicatricial, sloughed early, and suppuration occurred, with the establishment of sinuses, during which boracic ointment and boracic lint were used, frequently changed. The patient was up and about in less than two weeks after the operation, and constantly afterwards. About six weeks after the operation, some of the skin and the slough were removed under ether, and ten days later she went home. More or less discharge continued, and it gradually transpired that she had a fæcal fistula. This interfered with the retention of the hernia by a truss, and the two conditions combined were a source of much discomfort and inconvenience.

On June 11, 1880, a year after the strangulation, she was again placed under ether, and the sac opened. A coil of small intestine, adherent at the site of the fæcal fistula, was detached, and the aperture closed by inverting it and applying a glover's suture of catgut to the approximated peritoneal edges of the bowel. The neck of the sac was closed with carbolised silkworm gut, and the integuments were held with relaxation sutures quilled over rubber tubing, besides ordinary edge sutures. Rapid healing took place, and the patient was well in six weeks, a single sinus remaining. A truss, consisting of a plate of sheet zinc enclosed in a binder of swan's-down calico, was worn at once. Four months after the operation one of the sutures of silkworm-gut escaped, with the knot and loop unaltered, as if it had been wire. The hernia still protruded when unsupported, but was rendered quite comfortable, and kept reduced by the truss above referred to.

It is evident that suture of the neck under tension is not to be trusted as a means of effecting radical cure; but a simple successful method will be related in a subsequent case.

(To be continued.)

ADMINISTERING QUININE IN ENEMATA.—Dr. Alonzo Clark, of New York, observes:—"I have not become a lover of the hypodermic injection of quinine, for it so very generally has made sores in instances where I have seen it used; but I know that quinine is effectually administered by injection into the bowel, and given in this manner it acts, at least, in an innocent way. But it must be given in large doses to be effective. The doses that were employed four or five years ago would seem only to inflame the fever, and not to reduce the temperature. It must be used in ten-grain doses three times a day, and you will find that injecting it into the bowel will be just as efficacious as if it were taken by the mouth. I feel quite sure that I can make five or ten grains of quinine, properly dissolved, do just as much for the general system when injected into the bowel as if it were taken into the stomach."—*Louisville Med. News*, January 28.

APPLICATION IN INFLAMED CONJUNCTIVA.—A correspondent of the *Louisville Med. News*, January 28, describing a visit to the Manhattan Eye and Ear Hospital, New York, supplies the formula of a solution in very common use there for inflamed conjunctiva; it is used with an atomiser in the form of spray:—R. Tannin gr. x., sodæ bicarb. gr. xx., glycerin. ʒij., aquæ Oij.

AUSTRALIAN PRIZE QUESTIONS.—The Royal Society of New South Wales has just issued several prize questions for communications containing the results of original research or observation. Prizes of £25 each are offered for four subjects in 1882, and four in 1883. Those of the former year exclusively relate to the Aborigines and the development of the resources of New South Wales. Those for 1883 (essays to be sent in by August of that year) are—1. On the Chemistry of Australian Gums and Resins; 2. The Water-Supply in the Interior of New South Wales; 3. The Embryology and Development of Marsupials; and 4. The Infusoria peculiar to Australia. Prizes will not be awarded for mere compilations, more or less original research or observation being indispensable. Communications are to be addressed to the Hon. Secretaries, 37, Elizabeth-street, Sydney.

The mean reading of the barometer was slightly above the average for the corresponding period in forty years; and showed an excess in each month of the quarter. October was colder than any October in sixty-four years; November was warmer than any November since 1852; and in December, though the middle of the month was cold and foggy, the mean temperature was higher than usual during the first and last weeks. The mean temperature of the air was $3\cdot5^{\circ}$ below the average for the corresponding period in 110 years, while an excess of $6\cdot4^{\circ}$ and $0\cdot8^{\circ}$ respectively prevailed in November and December. The rainfall was about the average. The amount as recorded showed a slight deficiency

in October and November, and exceeded the average by about half an inch in December. The number of hours of bright sunshine recorded at Greenwich during the quarter was 187.9, against 151.6, the average amount recorded in the autumn quarters of the four years 1877-80.

ALBUMINURIA IN HEALTH AND DISEASE.(a)

A NEWLY published monograph and critical digest on the above subject, by Professor Senator of Berlin, tells the usual tale of progress in medicine—a tale which has evidently to be repeated many times before we learn wisdom. We have found out many new things about albumen in the urine, and we have also forgotten much. Thus Professor Senator observes that older writers were catholic enough to recognise three factors in the production of albuminuria—changes in the circulation within the kidneys, changes in the membranes interposed between the blood and urine, and changes in the blood itself. But since the publication of a work by Stokvis (Brussels, 1867), there has been, as it were, a run upon one of those three factors, to the neglect of the other two. Retardation of the blood-stream within the kidneys, and, in fact, of the stream in the glomerular tufts, has come to be not so much the central, but indeed the only important, consideration in the pathology of albuminuria; and no doubt any suggestion that other things used to be, and ought still to be, taken into account, would have seemed to the zealous and diligent students of blood-pressure to indicate a merely backward and unenlightened state of mind. Dr. Senator goes back upon earlier work, and presents us with a temperate review of the whole question.

If the recent work about albuminuria has been one-sided in its tendency, it has also been incidentally copious in its details. The original albuminous urine was that which coagulated when boiled. It is now known that the coagulum may be composed either of serum-albumin, or of globulin, although in most cases the two forms are present together, the globulin preponderating owing to its greater diffusibility. It is satisfactory to be able to quote from this book the opinion that if albumen be present in the urine, it will in most cases be made to coagulate by heat. The busy practitioner is fortunate in having a simple rule so generally applicable, for the other varieties of albumen that occur in the urine are not only more difficult to detect, but they are named according to a system which leaves the average practical man in a state of complete bewilderment. No one, taking etymology for his guide, would suppose that a substance named "peptone" may occur in the urine, causing "peptonuria." A certain suggestion of the gastric juice (extended to the pancreatic) will always cling around peptone; but, with those who are superior to etymology, any albuminoid body that has the same tests or reactions as the original peptone (formed by the action of gastric juice on proteids) is also called a peptone. The group of peptones have the following main characters: they are not precipitated by potassium ferrocyanide and acetic acid; they are not coagulable by heat; they are highly diffusible. Peptone occurs in the exudations of pleurisy, pneumonia, and acute rheumatism, as well as in the urine both in health and disease. It is suggested that its appearance in the urine is owing to a ferment-action analogous to that of the digestive ferments, and it is significant that peptonuria most usually occurs in the "zymotic" diseases. There is also an intermediate product in the changing of albumen into peptone, viz., propeptone or hemi-albumose; and that also is

found in the urine, not only in cases of osteomalacia, but also in other cases, of which Dr. Senator has seen seven during the last three or four years. Urine containing propeptone (and not serum-albumin and globulin) remains clear on boiling, but becomes cloudy or gives a precipitate on the addition of acetic acid and potassium ferrocyanide. But there are probably cases of "mixed albuminuria," in which both propeptone and the ordinary albumens (serum-albumin and globulin) occur together. The peculiarity of propeptone or hemi-albumose, that it is not coagulated by heat, is certainly the reason why so little has been known hitherto about propeptonuria. The usual method of testing for albumen (boiling and then adding nitric or acetic acid) is inadequate for the detection of propeptone, even if the boiled urine be allowed to cool before the acid is added. The best quantitative test for albumen (precipitating every albuminoid body except peptone) is to acidulate the urine with acetic acid, and carefully add a concentrated solution of potassium ferrocyanide. The detection of peptone in the urine is not so easy; it may be present when no other form of albumen is found (according to the above tests), and it is said that metaphosphoric acid will throw it down.

The detection of more than one kind of albumen in the urine in disease, gives new interest to the question of albumen occurring in the urine in health. This is the subject of Dr. Senator's second section. Many observers have noted the occurrence of albumen in the urine in health. An American authority found that out of 200 apparently healthy persons who came to be examined for life assurance, twenty-four, or 12 per cent., had albumen in the urine; and the examination of the urine of healthy soldiers and of healthy children has given almost the same percentage. There is thus good reason to suppose that albumen may occur in the urine of any healthy person at one time or another. Again, in dilute urine it is not so easy to detect albumen, and the amount of salts present also makes a difference. The facts leave us with two alternatives: either that albumen is present in every sample of urine, but in varying quantity, so that at one time its presence escapes our existing means of detection, while at another time, under certain physiological conditions, it is discoverable; or, that at times it is altogether absent, and only appears in the urine under certain physiological conditions. Dr. Senator inclines to the former alternative, and he would speak of a physiological albuminuria, just as we now speak of a physiological glycosuria or oxaluria. It must be from the glomerular vessels that the albumen escapes in health, and by the mechanical process of filtration. All normal transudations, escaping from bloodvessels and also through a stratum of epithelium, contain a certain small percentage of albumen. Not only the cerebro-spinal fluid, but also the transudations of the serous membranes, and the aqueous humour, contain some albumen; and the pericardial fluid may be conveniently tested as an example. Wherever, in the body, fluid escapes from bloodvessels, without the intervention of specific glandular epithelium, it contains albumen; and, inasmuch as the epithelial covering of the glomeruli is not of the secretory glandular kind, but, indeed, of the flattened or endothelial type, the circumstances are precisely those under which albumen might be expected in the transuding fluid, and it would be, in fact, strange if that fluid did not contain some albumen. But the conditions of blood-pressure in the glomeruli, and the laws of filtration, combine to keep the amount of albumen less than it is in other fluids transuding from bloodvessels.

Having discussed the varieties of albumen that occur in the urine, and the means of detecting them, and, secondly, the argument for the uniform occurrence of more or less

(a) "Die Albuminurie in gesunden und kranken Zustände," von Dr. H. Senator, Professor in Berlin. Berlin. 1882. Pp. 116, with one plate.

discoverable traces of albumen in health, Dr. Senator proceeds to consider what may be called the three classical factors of abnormal albuminuria—changes in the blood pressure, changes in the membranes interposed between blood and urine, and changes in the blood itself,—and to assign the relative part to each.

RENAL SURGERY.

SURGERY continues to achieve new triumphs, and even the healthy kidney is now no longer safe from the knife! We speak deliberately in saying the healthy kidney may now be cut into; for at the recent discussion (recorded in our last number) at the Clinical Society, cases were read in which the otherwise healthy organ was incised in order to extract a calculus from its pelvis. In Mr. Beck's case, after the kidney had been exposed, the calculus could not be felt by the finger, and it was only after exploring with a "darning-needle" that its presence as well as its size were ascertained. Perhaps, however, some enthusiastic pathologists will decline to accept as healthy a kidney in whose pelvis a calculus is found.

From the time of Hippocrates it has been taught that calculi should be extracted from diseased kidneys whenever the probe, introduced through sinuses in the loin, leads to their detection; but the operation does not appear to have been largely practised, or if practised, it has not been recorded. It is true that our literature contains one or two references to such an operation, but they are too uncertain and indefinite to be relied upon.

It was not until Simon of Heidelberg recorded, in 1869, a successful case of extirpation of the entire organ that the attention of surgeons was turned to this subject; since that time, however, much progress has been made. Simon's first case was unique of its kind. The ureter had been wounded during a hysterotomy, and a troublesome urinary fistula was the consequence. Simon bethought himself of extirpation of the corresponding kidney as the only possible cure. After a series of experiments *in corpore vili* to test the viability of animals after removal of one (healthy) kidney, he decided to try this operation on his patient. The operation was done before the days of antiseptics, and three thick silk ligatures were left hanging out of the wound. The woman recovered well from the operation, and was soon up and about; but a small sinus was kept open in the groin by these ligatures, which, however, healed rapidly as soon as they fell off. Thus was demonstrated that a human being could live and appear well without uterus and with only one kidney.

It is true that other cases had occurred of removal of the kidney; but these were accidental, while Simon's was the deliberate outcome of a surgical operation undertaken for the purpose. Since this time many other kidneys have been removed, but for awhile only diseased organs were thought suitable for the operation. For the most part, they were cases of calculous pyelitis, or malignant growths, or painful and floating kidneys. It must be admitted that such cases do not, at first sight, seem likely to benefit very much by such an operation as this. For calculous pyelitis, if it have been allowed to go on, tends greatly to debilitate the patient, in addition to setting up severe local changes, which render a successful operation very difficult. In cases of malignant disease there is danger of general dissemination, and this makes the final results doubtful, even though the patient recover well from the immediate effects of the operation. In the later cases which have been published (by Mr. Morris, by Mr. Beck, and by Mr. Butlin) surgical interference has been undertaken at a much earlier period of the disease. Doubtless, had this not been done,

the secondary changes of pyelitis would have been induced, and the chances of recovery proportionately reduced.

The success which has attended these last-mentioned operations will be very encouraging to surgeons. In Mr. Morris's case the symptoms pointed very clearly to renal calculus. Credit is due to this surgeon for having dared to do, by "nephro-lithotomy" (to use his own expression), what had not been done before, though it had been hinted at. His operation was quite successful, and the young woman was restored to perfect health. In this particular case, no difficulty was experienced in detecting the calculus after the kidney had been exposed, for the "right index-finger almost immediately detected something rounded, about the size of the uncut end of a pencil, causing a slight irregularity of the surface of the kidney at a spot just a little behind the hilus." The rest was therefore plain sailing. Mr. Beck's case introduces a further improvement in methods of operating. After he had exposed the kidney, nothing whatever of a calculus could be felt, and without further exploration relief could not have been afforded. Both Simon and Morris had recommended that an exploring needle should be introduced if necessary for diagnosis, but Mr. Beck appears to have been the first really to practise this plan; and with the happiest results, for he not only detected the calculus, but was able to gauge its size.

Other cases have since been explored by this method, and with equally satisfactory results as regards its freedom from danger. Mr. Lucas might possibly have found a calculus in his case had he employed this means of diagnosis after simple exposure of the kidney had failed. As to the incision which should be employed in these cases, we incline to the opinion that it should be either vertical or oblique, and not transverse. A larger area of the kidney will obviously be exposed by the former than by the latter. Whether the abdomen should be opened or not, will depend on circumstances. For such cases as we reported last week, the lumbar incision is clearly the better, and answers every purpose; but for the removal of dilated kidneys, or of kidneys which are the seat of sarcoma, or for loose kidneys, we think the abdominal incision will be found preferable, as affording larger opportunity for the thorough removal of every trace of the disease, and for ligaturing the vessels. Abdominal surgery, when carefully practised, is now much safer than formerly. And although at present there seem to have been more deaths after abdominal incision in this class of cases, we are far from sure that the higher death-rate is other than accidental.

The indication, however, is to study very carefully all the symptoms; so as, if possible, to get the calculus cases at an early stage, and before disease and dilatation of the kidney have been brought about. By this means a large number of cases will be obtained in which the lumbar incision will prove the better. At the present time we have much to learn concerning the earlier signs and symptoms of renal calculus. The symptoms do not always bear a direct relation to the size of the stone; indeed, in some cases, in which the symptoms have appeared to indicate such a condition, no calculus has been found. On the other hand, large calculi have been found after death in bodies where their presence had never been suspected.

The cases which we recorded last week all deserve careful study. They mark a new departure in renal surgery. If further experience should prove that cutting down on to the kidney and its exploration by a "common darning-needle" is as free from subsequent, as it appears to be from immediate, danger, cases of calculous pyelitis will soon disappear from our disease-tables. For we can hardly imagine any more painful or wearing symptoms than those which are usually associated with the presence of a calculus in the kidney. It

is this severity of the symptoms and their hopelessness which has induced the patients hitherto operated upon to submit to a new and untried operation; and now that this operation has proved itself so successful, it will doubtless come into more general requisition. Mr. Morris is to be congratulated on having introduced nephro-lithotomy into practice, and Mr. Beck on having demonstrated all the additional advantages which may be gained by exploring the exposed kidney with a "darning-needle" whenever the presence of a calculus cannot be determined by the finger alone.

THE WEEK.

TOPICS OF THE DAY.

It must be admitted that the efforts of the metropolitan vestries and district boards to alter the present monopoly of the London water companies have, so far, produced very little effect of any kind. The delegates met again recently at the St. Martin's Vestry Hall, under the presidency of Mr. E. J. Watherston, to consider the present position of the question, when the Chairman announced that the Government had intimated their intention not to deal with the subject during the present session. He pointed out, however, that notice had been given in the Queen's Speech that a much larger question, dealing with the metropolitan government, would be introduced, and it was clear that the subject of water-supply was part of a greater scheme, whereby it was proposed to give Londoners the complete control of their local government. It could not be doubted that Government intended to provide, by a system of direct representation, a corporate body which would have powers, *inter alia*, similar to those which were proposed to be given a "water trust." Mr. Watherston concluded by quoting figures to show that the water companies were strengthening their position every day, and availing themselves of the powers they already possessed, but he allowed that the delegates present could do nothing until they saw how the question would be affected by the Government's Municipal Bill. After some discussion, a resolution was carried to the effect "That further action in the matter of the water-supply of London be deferred until the nature of the Government's Municipal Bill is revealed." Mr. W. H. Smith, M.P., who was present, was invited to give the meeting the benefit of his views on the subject; but that gentleman explained that he had attended to hear the opinions of the delegates and to obtain information. He, however, ventured to express his regret that the matter had been allowed to sleep so long, and comforted his hearers by stating that, in his opinion, the ratepayers of the metropolis would suffer very much indeed from the delay that had already taken place. It was arranged that, as soon as the Government's Municipal Reform Bill was made known, the delegates should be called together again. The only thing left for them to do, however, appears to be to support the Government Municipal Bill. Sir William Harcourt, possessed by the hope of having the honour and glory of carrying that measure, has declared that the ratepayers are a perverse generation, and he is not going to trouble himself with trying to make a bargain between them and the water companies. But the municipal authorities of London would no doubt do the desired work. Therefore, let the ratepayers support the Government.

Dr. Carpenter has asked that a fuller report may be given of one passage in his recent address on vaccination, already reported. He says:—"So far as I know (*i.e.*, on the answers received by me from three out of the four Asylums Board Hospitals to inquiries I have made on this special point), no person who bore the evidences of good vaccination has died from that peculiarly malignant form of small-pox known in

medicine as the hæmorrhagic or petechial, the frequency of which in the epidemic that began in 1871 has given to it its exceptional fatality, raising the death-rate among the unvaccinated as high as 47 per cent.; while that of all who bear any vaccination marks, whether perfect or imperfect, does not exceed 7·8 per cent., or less than one-sixth."

A public dinner was recently held at the "Star and Garter," Richmond, in aid of the building fund of the Richmond Hospital. The new wards of the Hospital are in a very forward state, and the need of more accommodation for in-patients has been attested by the increasing number of applications for admission, and by the fact that the number treated in the course of last year exceeded that recorded in any previous year. Upon the occasion in question the chair was taken by the Duke of Cambridge, who, in proposing the toast of the evening, remarked that seven years ago efforts had been made to add to the accommodation provided by the Hospital, since which its usefulness had greatly increased. Not only in Richmond, but in every other town, the growth of population was so rapid, that it might safely be laid down as a general principle that such institutions ought to be extended and multiplied as far as possible. In the case of Richmond, the necessary funds for this work had been readily found, so that of the £2747 for which the building contract was undertaken, there remained only a deficiency of £714. He earnestly recommended to his audience a Hospital which had afforded relief to no fewer than 2481 patients during the past twelve months. It was announced during the course of the evening that a sum sufficient to cover the deficit had been subscribed by those present.

At a recent meeting of the Hackney District Board of Works, attention was called to the promise that periodical inspections should be made of the sewers at Hackney Wick, and it was asked if the result had been that the "evil smells" complained of had entirely disappeared. Dr. Tripe, the Medical Officer of Health, said the Metropolitan Board of Works had set persons to watch the locality, and, in consequence, summonses were issued against a firm of manufacturers, who had since constructed a large tank in which they deposited the offensive liquor complained of—the whole of the sulphurous compounds being now precipitated,—so that there should be no further smells from that source. The sewers at the locality in question were under the direct supervision and control of the Metropolitan Board of Works, who, in fact, took action in the matter before the District Board of Works appointed its committee. The supervision was still continued, but, with the course taken by the firm in question, it was not very likely any further nuisance would arise. Several members of the Board expressed their satisfaction with the result.

The Smoke Abatement Exhibition at South Kensington was brought to a termination on the 14th inst. That it has excited a considerable amount of interest cannot be disputed; but whether the metropolis will really benefit by the exertions of its promoters remains to be proved. The exhibits, singularly enough, would appear to have had a great attraction for Royalty, the last distinguished personage who visited it having been the late Empress of the French, who examined closely a large number of the appliances, and expressed much approval of several of them. The visit to South Kensington of the deputation appointed by the city authorities of Manchester, has resulted in a decision to transport the chief exhibits to Manchester, for the purpose of opening a general exhibition of smoke-preventing appliances there, upon a site offered by the Corporation for the purpose. The local committee comprises the Earl of Derby, the Mayors of Manchester and neigh-

bouring towns, various members of the Association for Controlling Noxious Vapours, and the Manchester and Salford Sanitary Association.

At Lambeth Police-court, last week, Mr. Walter Hasker again appeared to a summons taken out against him by the Lambeth Guardians for not having had one of his children vaccinated. It will be remembered that on a previous occasion the case was adjourned by the magistrate, in order that the Local Government Board might decide as to whether the defendant could be twice summoned and convicted with regard to the same child. It was now stated that the Board had given its opinion that he could. The counsel for the defendant entered at length into the various objections of hundreds of persons against vaccination, and asked that the summons should be dismissed, as the defendant had "reasonable" cause for the neglect charged against him. Notwithstanding his pleading, however, and some evidence (so-called) condemning vaccination, the magistrate declined to allow that there had been "reasonable" cause for any neglect. But he stated that he fully believed the defendant was actuated by conscientious motives, and, taking all the circumstances into consideration, he should certainly not inflict the full penalty. He required the defendant to pay a fine of 7s. 6d., with £1 1s. costs.

Some of our contemporaries have recently taken up the question of the necessity of establishing a night medical service for London, similar to the arrangement now in force in Paris and Belgium. A case is reported in which an unfortunate woman bled to death while her husband and a policeman were trying for a whole hour to procure the attendance of a medical man. It is suggested that a certain number of practitioners should voluntarily register their names at the different police-stations in their districts, as willing to respond to any night call made by a police officer; the power already possessed by the police to summon and pay medical men in cases of accident being extended to meet these night payments. The one objection to such an arrangement, that it would be liable to be abused by unprincipled people, might be met by authorising the police to take proceedings before a magistrate against any such offenders. Certainly there could be no harm done in starting such a "night service" in the metropolis: no medical man would be compelled to place his name upon the list; and as only the practitioners so enrolled would be called upon in an emergency, the system would prove a boon to those members of the profession who, from ill-health or other causes, object to be summoned to give their services at untimely hours.

A deputation from the Woolwich Local Board of Health recently waited upon the Home Secretary on the subject of the pollution of the Thames at Woolwich. The Rev. T. Tuffield introduced the deputation, whose case was that the river at Woolwich had become little better than an open sewer, that one-fifth of the stream was, at certain times, sewage matter, and that the mud on the banks about there contained 15 per cent. of organic matter, all within half a mile of the Albert Dock, the place whence the troops were embarked last year for Natal. They further urged that as Woolwich paid its quota to the Metropolitan Board of Works to provide proper means of discharge, the Board ought to perform the functions provided for it by Act of Parliament; but that, instead of doing so, they allowed a state of things to come about by which Woolwich paid for discharging its sewage within its own parish. They prayed Government not to allow the Metropolitan Board of Works to expend any more money in connexion with sewage schemes until a full inquiry had been made into the present complaints. Sir William Harcourt, in reply, said the Corporation of London had already been in communication with him on the subject,

and he had communicated with the Metropolitan Board of Works. There was no doubt that something would shortly be done in the matter which would be satisfactory to all parties.

The Medical Acts Commission resumed its sittings on February 3, 4, and 6, when the Earl of Camperdown (chairman), the Right Hon. W. H. F. Cogan, the Master of the Rolls, the Right Hon. G. Selater-Booth, M.P., Sir William Jenner, Mr. Simon, C.B., Professor Huxley, Dr. R. McDonnell, Professor Turner, and Mr. Bryce, M.P., attended.

THE MEDICAL REGISTER, 1882.

THE Registrar of the General Medical Council has got the Register completely in hand, and, thanks to his persevering energy and care, it is now not only published as early as possible in the year, but its accuracy and fulness may be confidently relied upon, in so far, at any rate, as official management is concerned. But we may again remind all medical men that the absolute accuracy of the Register, in some points, must depend upon themselves. If every medical man is not careful to send prompt notice of any change in his address, to the Branch Registrar by whom he was originally registered, in order that his new address may be inserted in the Medical Register, he not only certainly leaves on the Register (for a time) a wrong address, but he runs the risk of having his name erased from the Register. The total number of names in the Medical Register for 1881 was 22,936. The just published Register for 1882 contains the names of 23,275; of whom 16,024, or 68.9 per cent. of the whole number, are registered in the Local Register for England; 3580, or 15.3 per cent., in that for Scotland; and 3671, or 15.8 per cent., in the Local Register for Ireland. During the year 1881, 1053 persons were added to the Register, of whom 594 were registered in England, 250 in Scotland, and 209 in Ireland. Moreover, it may be instructive to state that during the last year 897 names were removed from the Medical Register, of which only 537 were removed by ascertained evidence of death, or by ceasing to practise, and so many as 359 under Section 14 of the Medical Act, that is, in consequence of the neglect of practitioners to keep the Registrar informed as to their whereabouts. During the year 183 names were restored to the Register under the same Section of the Act.

GOVERNMENT HOUSE, BOMBAY.

A CORRESPONDENT, in speaking of the heartfelt sympathy with Sir James Fergusson, the Governor of Bombay, for the sad calamity which has befallen his household, remarks:—"Three days after the grave had closed over Lady Fergusson, cholera carried off another victim in the person of her ladyship's niece, Miss Richman, a young lady of four-and-twenty. We desire to notice briefly this melancholy intelligence from the standpoint of hygiene. Though, as we learn, the latter lady was attacked by, and died of, cholera at the Government House at Poonah, still, we have before us what seems to be conclusive evidence that she took the infection, or the specific virus of cholera, at the Government House in Bombay in common with Lady Fergusson. It would appear that both these ladies were previously in good health. Lady Fergusson had breakfasted as usual, and was sitting at work with Miss Richman and Miss Fergusson, when she was suddenly taken ill. Immediately the real nature of the disease had declared itself, the Governor's surgeon, Dr. Findlay, took the precaution of causing the two ladies to be removed to another house. Captain Fergusson, A.D.C., was the only other person who was then residing at the Government House. This gentleman, it is reported, suffered from a mild attack. As regards the causation, we understand that the

milk used at the Government House was supplied from a neighbouring village (Parel) where cases of cholera are known to have occurred both before and since, and cases are reported even now as we write. The sanitary conditions of the Government House in Bombay unquestionably appear to be most unsatisfactory. We are positively told that there is no sewerage system whatsoever, and that the house-drainage is received into cesspools only a short distance off; moreover, that there is a tank behind the house, which, though shallow, occupies a considerable area, and that its water is *foul, green, and slimy*. The margins of this tank, when the water has partially evaporated and receded, have a very foul, unpleasant, and putrid smell. The people of the village referred to, we learn, drink this water! Might we inquire whether the milk-vendors add it to the milk? The village itself, however, is not particularly dirty, when measured by the standard of the average Indian village—though it seems that everything necessary for the origin and spread of cholera is present there, and it would certainly be strange if cholera did not break out. In the *Medical Times and Gazette*, February 26, 1881, we noticed a lecture delivered by Dr. Kenneth McLeod at a meeting of the Bengal Social Science Association, held in Calcutta. We then wrote that ‘He holds that it is scarcely possible for tanks to contain or supply pure water, inasmuch as “they are mere pits dug in a contaminated soil, and receiving by drainage from the soil contaminated water, which undergoes further contamination through evaporation and use.”’ The system of drainage in that part at least of Bombay may be expressed in one word, and that word is—*nil*. At present there are open gutters into which sewage flows. This sewage or sewage-water is *black and putrid*, and flows into stagnant pits, and is allowed to evaporate into the air in the vicinity of dwellings, and to soak into the earth in close proximity to the Governor’s abode. Such, sketched in outline, are the sanitary surroundings of the mansion wherein the ruler of the Bombay Presidency dwells.”

INTERNATIONAL CONGRESS OF HYGIENE AT GENEVA.

THIS Congress is to be held from September 4 to 9, 1882, and every effort will be made to render it worthy of its three predecessors, held at Brussels, Paris, and Turin. A Section of Demography is on this occasion to be added. A warm appeal is made to hygienists and demographers of all countries to lend their aid to what, from its warm approval by the authorities and people of Geneva, is expected to prove a very successful meeting. They are invited to at once submit to the Organising Committee notices of the questions which they are of opinion might be usefully discussed, and as soon as possible a list of such subjects will be announced. There is also to be an exhibition from September 1 to 30 for publications, plans, designs, and objects of every kind bearing on hygiene or demography; and authors, inventors, and manufacturers are urged to make known as soon as possible their intention of taking part in the Exhibition. Dr. Lombard is the president, and Dr. Dunant the general secretary of the Organizing Committee.

UNIVERSITY COLLEGE HOSPITAL.

THE annual festival of this Hospital took place on Wednesday last, February 15, at the Langham Hotel, under the presidency of Field-Marshal H.R.H. the Duke of Cambridge, K.G. There was a large gathering of the friends and supporters of the Hospital, including the Earl of Kimberley (President of University College), Hon. Mr. Justice Denman, Sir George Young, Admiral Horton, C.B., Surgeon-General T. Mouat, V.C., C.B., and the members of the medical and surgical staff of the Hospital. The Chairman made a powerful appeal for additional funds towards carrying on the work of the charity.

The Treasurer’s report certainly was far from satisfactory, as it indicated a large deficit; on the other hand, the importance of the work which is being done by the Hospital, as such, apart from its further duties as a school of medicine, was clearly set forth. The Earl of Kimberley, in proposing the toast of the Chairman for the evening, referred to the somewhat anomalous position of our London hospitals. They were, he said, institutions which were all kept up by voluntary contributions: so that London, a city of four millions of inhabitants, was really without any provision of its own for the large amount of sickness and accidents which would necessarily be found in such a population. He thought the time would soon come when the subject would have to be seriously considered, as to whether or not public money ought to be handed over for the purpose of supporting them. These hospitals not only afforded shelter to the sick, they were also the schools of medicine, which supplied the medical men, of which the country had such need, and without which it would, under existing circumstances, be impossible to educate them. This he thought was an additional reason why the country ought to contribute towards their support. The Duke of Cambridge paid a glowing tribute to the Army Medical Department, without the aid of which, he said, the other departments of the Army and sister services would be unable to discharge their duties. He had heard it stated that young medical men had an idea that their services were not appreciated by the Army authorities; he (the Duke) would take this opportunity of stating that this was not the case, but quite the contrary. The Treasurer announced that upwards of £1600 had been collected during the evening.

THE PARIS WEEKLY RETURN.

THE number of deaths for the fifth week of 1882, terminating February 2, was 1289 (688 males and 601 females), and among these there were from typhoid fever 31, small-pox 11, measles 21, scarlatina 2, pertussis 5, diphtheria and croup 64, erysipelas 4, and puerperal infections 9. There were also 59 deaths from tubercular and acute meningitis, 190 from phthisis, 56 from acute bronchitis, 146 from pneumonia, 68 from infantile athrepsia (32 of the infants having been wholly or partially suckled), 107 from diseases of the cerebro-spinal system, and 37 violent deaths (23 males and 14 females). The number of deaths for the week is slightly in excess of that for the four preceding weeks. The only epidemic disease which has undergone increase is measles (from 13 to 21). The births for the week amounted to 1208, viz., 637 males (466 legitimate and 171 illegitimate) and 571 females (418 legitimate and 153 illegitimate): 97 infants were born dead or died within twenty-four hours, viz., 59 males (legitimate 46 and illegitimate 13) and 28 females (legitimate 24 and illegitimate 14).

PATHOLOGICAL SOCIETY OF DUBLIN.

At the meeting of this Society held on Saturday, February 4 (Dr. William Stokes, President, in the chair), Dr. A. W. Foot showed a heart weighing twenty-four ounces and a half, free of clot, from a man aged forty-five years, who had suffered from acute rheumatism twenty-five years previously. An attack of bronchitis proved fatal in a few days. During life a double bellows-murmur had with difficulty been heard at the base of the heart, owing to the noisy character of the breath-sounds. The aortic valves were fringed with fibrinous deposits. Very considerable hypertrophy of the left ventricle existed. The mitral opening was normal. Dr. J. W. Moore presented the lungs and heart of a woman aged about fifty years, who had died rather suddenly at the end of the third week of an attack of right pleurisy with effusion. The physical signs of a collateral hyperæmia of the left lung were well marked on the day of her death.

which occurred ten hours after she came under treatment in the Meath Hospital. Arrangements were made for performing thoracentesis the morning after her admission to hospital, but she died on the evening before the operation. Eighty ounces of clear, straw-coloured serum escaped from the right pleural cavity. There was much recent lymph over the lung, which was completely collapsed, and airless except at the extreme apex, where some cheesy deposits were discovered. The left lung was largely hyperæmic. Blood was present in all the chambers of the heart, as well as in the pulmonary artery and the aorta. The cause of death was not very plain. It may have been asystolism of the heart, due to extreme obstruction to the pulmonary circulation or to twisting of the inferior vena cava from pressure of so great an effusion in the right pleura.

At the meeting of this Society held on Saturday, February 11 (Dr. William Stokes, President, in the chair), Dr. Walter Smith showed the kidneys of a woman, aged sixty years, in whom Professor William Moore detected albuminuria ten years previously. The patient was admitted to Sir Patrick Dun's Hospital about a fortnight ago, being then anasarca for the first time. The urine contained albumen, tube-casts, and blood corpuscles. Epileptiform fits occurred once or twice daily from February 4, and in one of these fits this woman died on the 8th inst. The right kidney was granular on the surface, and in a state of extreme cirrhotic atrophy, with minute hæmorrhagic puncta in the pelvis. The left kidney was of normal size, dense, tough, and highly granular. Its capsule was thickened. There was a hæmorrhagic spot at the apex of one of the Malpighian pyramids. The Secretary (Professor Bennett) presented, on behalf of Dr. Ringrose Atkins, of Waterford, a specimen consisting of a portion of the intestine—the junction of the colon with the rectum—taken from the body of a man aged fifty years, who died in hospital, having suffered for some thirty-eight days previously from almost complete obstruction of the bowels. When the abdomen was opened, a small quantity of greenish serous fluid was found in the peritoneal cavity, the intestines were filled with soft yellow fæces, the ascending transverse and descending colon being distended almost to bursting. At the sigmoid flexure the stricture was met with, so tightly contracting the lumen of the gut that the tip of the little finger could scarcely be inserted. The gut seemed to be drawn in annularly at the spot indicated, and there were no inflammatory adhesions anywhere, nor any discolouration of the tissues of the intestine. Dr. C. B. Ball showed a specimen of cancer of the bladder from a man aged fifty-four, who had, eight months before his death, fallen a depth of twenty feet, alighting feet foremost. About two months after the fall he began to pass blood in his urine, and the hæmaturia continued with intermissions until his death. Latterly the urine had been loaded with blood, alkaline, offensive, and it deposited much vesical mucus. Under the microscope were seen immense numbers of active bacteria, with epithelium and crystalline phosphates, but no portions of new growth were ever found. After death a large mass was found in the greatly diseased bladder, the walls of which were infiltrated by the neoplasm, thus distinguishing it from a villous tumour. Portions of the new growth were pediculated, others were sessile. The ureters were dilated. The right kidney was embedded in firmly adherent fat, and was itself very fatty. The calyces of the left kidney were dilated, and its pyramids had disappeared.

THE CHAIR OF PATHOLOGICAL ANATOMY, ABERDEEN.

THE founding and endowment of the Sir Erasmus Wilson Chair of Pathological Anatomy in the University of Aberdeen have now been completed. The deed has been com-

municated to the Home Office, and the endowment has been received by the University; and Sir Erasmus has nominated the Crown as patron of the Chair. The Professor will receive the yearly revenue of the endowment, and the fees paid by students entering to his lectures. He is to teach practically as well as by lectures, and he is not to engage in private practice, but to devote the whole of his time to the duties of his chair.

THE DENTISTS' REGISTER, 1882.

THE Dentists' Register for 1882, which has just been published, has been brought out with all the accuracy and carefulness that invariably characterise the work of Mr. W. J. C. Miller, the Registrar of the General Medical Council. There are now on the Dentists' Register the names of 5345 dentists, of whom four are foreign dentists and 5341 are United Kingdom dentists. The four foreign dentists are all American, three being Doctors of Dental Medicine of the University of Harvard, and the remaining one a Doctor of Dental Surgery of the University of Michigan. Of the United Kingdom dentists, 698 possess licences in dental surgery; 359 of whom hold the licence of the Royal College of Surgeons of England, 21 that of the Edinburgh College, 40 that granted by the Faculty of Physicians and Surgeons of Glasgow, and 278 the Dental Licence of the Royal College of Surgeons in Ireland. Of the remaining "dentists" by Act of Parliament, and registered on their own declarations as having been in *bonâ fide* practice as dentists before July, 1878, twenty are registered "with additional surgical qualifications," and 4623—equal to a percentage of 86.49 of the whole number of persons on the Register—without any additional qualifications whatever.

VITAL STATISTICS OF PARIS.

THE Paris Municipality has just issued its first statistical *Annuaire*, a bulky and valuable volume of some 600 pages royal octavo, containing a vast store of information, with a large number of illustrative tables, relating to the year 1880. All the departments of the Municipality have contributed to its production, supplying the statistics of the meteorology, analysis of the air, sewerage, distribution of water, articles of consumption, the Mont de Piété, the Assistance Publique, the means of transport, public instruction, etc. A large part of the volume is devoted to the movement of the population, supplied by Dr. Bertillon, the director of the municipal statistics.

DUBLIN HOSPITAL SUNDAY FUND.

THE annual meeting of this body was held on Tuesday, January 31, in the Molesworth Hall, Dublin. Mr. Ion Trant Hamilton, M.P., presided. The report of the Council for the year 1881 was read by Dr. Grimshaw, Registrar-General, one of the Honorary Secretaries. Notwithstanding the many disturbing and disquieting causes which prevailed during the year, the Fund shows a slight increase over 1880. Collections were made on Sunday, November 13, 1881, in 232 places of worship, being three more than in the previous year. The total amount contributed by congregations and individuals was £4066 8s. 7d., being an increase of £16 0s. 10d. as compared with 1880. It appears that, since the foundation of the Fund in 1874, a sum of upwards of £31,600 has been contributed through its agency in aid of the work of the Dublin hospitals. In the general unsatisfactory state of affairs in Ireland, it is pleasing to observe that the Dublin Hospital Sunday Fund has obtained such a firm hold on the affections of its supporters that it shows signs of recovery from the depression of the year 1880. The total amount to the credit of the Fund for the

year 1881 was £4248 3s. 10d., including a balance from the previous year of £172 11s. 4d., and £9 3s. 1d. interest allowed by the bankers. The working expenses for the year amounted to £264 17s. 1d., being 6·71 per cent. on the total collected. The result of the distribution in 1881 is shown in the following table:—Sir Patrick Dun's Hospital, £219 12s. 9d.; City of Dublin Hospital, £780 15s. 4d.; Dr. Steevens' Hospital, £85 6s.; Meath Hospital, £408 4s.; Mercer's Hospital, £151 7s. 7d.; Whitworth (Drumcondra) Hospital, £92 16s. 8d.; Coombe Lying-in Hospital, £119 10s. 4d.; Rotunda Lying-in Hospital, £102 3s. 10d.; St. Mark's Ophthalmic Hospital, £115 13s. 9d.; National Eye and Ear Infirmary, £49 5s. 6d.; Convalescent Home, £145 1s. 3d.; Cork-street Fever Hospital, £283 3s. 6d.; Adelaide Hospital, £835 6s. 4d.; Monkstown Hospital, £191 1s. 5d.; Orthopædic (Usher's Island) Hospital, £91 15s. 8d.; National Orthopædic and Children's Hospital, £78 16s. 1d.; total, £3750. The Right Hon. Col. Taylor, M.P., proposed the adoption of the report, which was seconded by Dr. James Foulis Duncan. An ill-advised amendment was proposed and seconded by perhaps over-zealous clergymen of the Church of Ireland, to the effect that the Executive Committee of the Hospital Sunday Fund should be requested to devise some plan by which adequate accommodation might be secured for the Protestant sick in hospitals receiving grants from funds supplied almost exclusively by the Protestant section of the community. Happily, after a full and lengthened discussion, the amendment was withdrawn, and the report was adopted.

DEATH OF PROFESSOR BUSSY.

At the last meeting of the Académie de Médecine, Prof. Gavarret, the President, announced (*Gaz. Hebdomadaire*, February 10) the death of M. Bussy, the discoverer of anhydrous sulphuric acid, magnesium, the liquefaction of sulphurous acid by cold, etc.; and paid, amidst great applause, a tribute to the admirable characters of a prolonged career. He was *agrégé* Professor of the Faculty of Medicine, Professor of Chemistry at the École de Pharmacie, and Member of the Academy of Medicine and of the Academy of Science. He retained to the advanced age of eighty-eight the free use of his physical and intellectual powers. As a mark of respect for his memory the Academy immediately adjourned.

ODONTOLOGICAL SOCIETY.

We are requested by the Council of the Odontological Society to give publicity to the fact that after November 1, 1882, no applications for membership will be received from any candidate not possessed of a diploma.

POISONING BY YELLOW ACONITE.

A CORRESPONDENT sends us the following:—"A lady had a bunch of freshly cut flowers of the yellow aconite in a glass of water on the table in her drawing-room; a pet dormouse belonging to one of the children was running about on the table, over the child's hand and arm. The child said the dormouse was thirsty, and she took her little thimble, filled it with water from the glass, and offered it to the dormouse. The animal drank it readily. In a minute or two it fell over on its back; and after a short struggle, died on the table." The yellow aconite would thus seem not to be quite so inactive as has been assumed.

MERCURIAL SALIVATION.—For the prevention of salivation, Prof. Panas prescribes the following powder, with which the gums should be rubbed ten or twelve times a day during treatment by mercury:—Powder of cinchona, three parts; powder of rhatany, and powdered chlorate of potash, of each one part.—*Jour. de Thérapeutique*, February 10.

SIR ROBERT CHRISTISON, BART., M.D. EDIN.,
D.C.L. OXON., LL.D. EDIN.

THE death of Sir Robert Christison severs almost the only connecting link between the grand traditional past of the Edinburgh Medical School and the busy present time; for although Sir Robert Christison had since 1876 retired from his professorial duties, his untiring energy and keen sense of duty to the University and to the profession kept him prominently before the profession and the public; and as, since the severe illness which was the immediate cause of his retirement from the chair, his health had been good, he had, till comparatively lately, been able to gratify to the full that inborn liking for work which was always his characteristic.

But the end came at last. About the latter part of December he caught a cold, from the effects of which he had not strength to rally. Becoming gradually weaker, he on the 23rd of last month lapsed into a state of unconsciousness, and died on the morning of the 28th.

Sir Robert Christison was born, one of twins, in Edinburgh, on July 18, 1797. His father, Alexander Christison, was Professor of Humanity in the University from the year 1806 to 1820. His mother was Margaret, daughter of Mr. Robert Johnston, merchant and banker, in Edinburgh. Sir Robert's twin-brother was minister of the parish of Foulden, in Berwickshire, from 1821 till his death in 1874; and his elder brother was John Christison, Sheriff of Ayrshire, who died in 1862.

Robert Christison was educated at the High School of Edinburgh, and completed his general literary and scientific education in the Arts classes of the University. After passing through this curriculum, the benefits obtained from which he reaped in after life, he entered upon the study of medicine, and graduated as M.D. in 1819. He then spent about two years and a half as Resident Assistant in the Royal Infirmary, and after a short sojourn in London, he, as most of our best graduates do nowadays, proceeded to the Continent. In the hospitals and laboratories of Paris he increased his store of professional knowledge. Whilst there he paid special attention to the study of the higher branches of chemical analysis, and, as the result of the teachings of Robiquet, Orfila, and Gay-Lussac, he showed himself to be possessed of such powers of accurate observation and research that at the early age of twenty-five he was elected, in succession to Alison, to the chair of Medical Jurisprudence in the University of Edinburgh. In this capacity he worked assiduously, and in 1829 he gave to the world the first edition of the "Treatise on Poisons." Concerning this great work it may be said that it still holds a foremost place as a standard book; and when we reflect on the vast strides which toxicology has made since it was published, and on the immensely more precise methods, chemical and physical, which in recent years have been placed at its disposal, we are the better able to estimate the great labour and thought expended on the production of Christison's work.

As Professor of Medical Jurisprudence, and from the position which he made for himself as an authority on toxicology, Christison was, as might naturally be expected, considered a most important power in courts of justice. He was engaged in the Burke and Hare trial, and long subsequently in the hardly less famous Palmer trial; his evidence, given with the greatest clearness, and betokening a thorough acquaintance with his subject, was considered of such value that his services were retained by the Crown until its termination.

In 1832, as successor to Dr. Andrew Duncan, he obtained the chair of Materia Medica; and here, as before, he continued to direct all his energies to the best interests of his University and of science. Besides contributing numerous memoirs on pharmacology to the various medical and scientific journals, he wrote the articles "Poison" and "Orfila" for the "Encyclopædia Britannica"; and in 1842 he published the first edition of his celebrated "Dispensatory." This was long regarded as a standard work, and passed through several editions; but, by the publication in 1864 of

the "British Pharmacopœia," its continuance was regarded as unnecessary. In his zeal to discover the properties of certain of the contents of the *Materia Medica*, he had no hesitation in experimenting on his own person; and the incident in which he averted self-sacrifice by making use of his shaving-water as a ready emetic is well known.

It was not, however, as a pharmacologist and toxicologist alone that Christison shone. As a physician he was distinguished for his powers of accurate and careful diagnosis, and for skill and ready resource in the treatment of disease; and his clinical lectures were thoroughly appreciated by the large classes which he taught. He lived at a time when medical science was in what might be called a transition stage—i.e., when, by the application of the so-called physical methods to the investigation of disease, it began to become transformed into what we may hope to see it develop—an exact science. Christison was, however, eminently fitted for the transition. His views, as evidenced by his paper on the "Changes which have taken place in the Constitution of Fevers and Inflammations in Edinburgh during the last Forty Years," were almost necessarily coloured by his previous indoctrination in the older pathological theories, but he always showed himself to be capable of retaining whatever was good in the old system, and at the same time keenly sensible of the value of the modern methods and of the aid which the collateral sciences can afford in the investigation and treatment of the phenomena of disease. Shortly after his election to the chair of Medical Jurisprudence he was appointed an acting Physician to the Royal Infirmary, and he discharged the duties of that office with energy and ability till 1832. As the result of his work here and of the extensive consulting practice which he had acquired, he published in 1838 his work on "Granular Degeneration of the Kidneys."

As a professor, Christison will long be remembered with respect and affection by more than one generation of his pupils in all parts of the world. In his lectures he was particularly clear and concise, and by example and precept he taught the value of system in work. His personal influence was of the greatest value, and did much to raise the tone of his students. Such was his influence over them, that a few words could at once produce quiet in their most turbulent moments, and when all other means had failed. In the exercise of this power he was greatly aided by the fact that he possessed, in an eminent degree, a keen sympathy with the feelings of the young. Whilst enforcing by personal example the necessity for work, he was ever an advocate for all kinds of healthy relaxation. He was known to the students as a typical example of the *mens sana in corpore sano*, and, moreover, this knowledge of his physical powers did not depend on hearsay alone. To the last his erect figure and elastic step evidenced strength and energy; and we well remember how, on one occasion about a dozen years ago, as captain of the University Rifle Volunteer Company, he was superintending the preliminary calisthenic exercise of a batch of recruits, and it was found that he was the only one present who could properly perform the movements.

An able and accomplished musician, Christison took a foremost place in many of the musical societies of Edinburgh, and at the students' concerts his grand bass voice was often heard.

As a member of the *Senatus Academicus* he was indefatigable in his efforts to benefit the University. His method and thoroughly business-like habits made him invaluable in connexion with the internal administration of its affairs, and his advice was specially sought for and readily given in everything relating to its financial arrangements. Those who considered that certain changes might be desirable in the University system had always reason to attach considerable value to his opinion, for it was well known that the great talent and energy which he exerted in the endeavour to raise the name of his *Alma Mater* could readily be directed towards checking any infringement on what he considered her rights. It was, no doubt, this feeling of responsibility for the welfare of the University which led him to offer such strenuous resistance to the efforts of Miss Jex Blake and her fellow-students to gain admission to its classes some fourteen years ago, and their final overthrow in the University and in the Infirmary was greatly due to him. As might naturally be expected, he was strongly opposed to the one-portal system, and in favour of having a number of efficient examining bodies. His views on this subject were

embodied in the address which he delivered in Edinburgh in 1875, when President of the British Medical Association. In the scheme for the better endowment of the University, and in the arrangements for the new Medical School buildings, Christison took the warmest interest, and, thoroughly convinced of the great and increasing value of clinical investigation and teaching, he was an earnest promoter of the scheme for the rebuilding of the Royal Infirmary.

In token of the respect and affection with which he was held by university men and scientists generally, and as evidence of the appreciation with which his services were regarded, Christison was not allowed to pass unrewarded. He was twice (1838 and 1846) elected President of the Royal College of Physicians of Edinburgh, and on the latter occasion this honour was still further enhanced by the Fellows obtaining his portrait, painted by Sir John Watson Gordon, for the adorning of the walls of their hall. By the Royal Society of Edinburgh, to the *Transactions* of which he had largely contributed, he was elected President in 1868, in succession to Sir David Brewster. Between 1857 and 1873 he was the representative of the profession in Scotland at the General Medical Council.

After having been for many years Physician-in-Ordinary to the Queen in Scotland, Her Majesty was, in 1871, pleased to confer upon him the honour of a baronetcy—a mark of Royal favour which he at first desired to decline, but which he subsequently accepted, in deference to the wishes of his friends. With the following year came the fiftieth anniversary of his induction as a University Professor, and advantage was taken of the occasion, by his friends and admirers within and without her walls, to offer him a tribute of their regard and respect. This took the shape of a public banquet, presided over by the Lord Justice General, and attended by some 250 gentlemen of all pursuits and professions.

He had conferred on him the honorary degrees of D.C.L. by Oxford, and of LL.D. by his own University; and by the presentation of his bust to the *Senatus*, his great services to the profession were still further acknowledged by its members.

In 1875 he was also honoured by being elected as President of the British Medical Association, and at its meeting, which was held in Edinburgh, he delivered the inaugural address. No better proof, further, of the high position which he held as a scientific man can be desired, than that he was the next year selected as President of the British Association for the Advancement of Science. This, however, he was induced by his friends to decline, as it was considered that the performance of its duties would entail a greater tax on his strength than he was justified in risking.

In private life his high tone of character was ever conspicuous, and there seems naturally to associate itself with his name everything that was honourable and dignified in personal conduct. Under what appeared to many a somewhat frigid bearing there dwelt a warm and generous heart, which could readily find expression in magnanimous deeds and kind services; and those who were fortunate enough to enjoy his friendship could rely upon its steadfast continuance. Although he took comparatively little public part in church matters, he was for many years an elder in the Church of Scotland; and alike in his life and in his death he cherished a humble Christian faith. By the community in general, no less than by the University and the various learned bodies with which he had been so closely and usefully associated, his loss will long be felt. The name of Christison has for several generations been a household word in Scotland, and it is pleasing to think that though now no more among us, that name has gained a permanent place among those who have contributed in an eminent degree to the progress of medical science, and thereby to the welfare of humanity.

His grave is in the New Calton burying-ground, and his funeral was a public one. It was the largest which has been seen in Edinburgh for many years, and was witnessed by multitudes of the citizens who lined the streets through which the *cortège* passed.

Sir Robert Christison was married in 1827 to Henrietta Sophia, daughter of Mr. David Brown, of Greenknowe, Stirlingshire. Mrs. Christison died in 1849, leaving three sons. The eldest, Alexander, is now Deputy Surgeon-General in the Bengal Army; the second, David, has also followed the medical profession; and the youngest, John, is a writer to the Signet, and Secretary to the Edinburgh University Court.

FROM ABROAD.

SILVER-WIRE SUTURE IN FRACTURE OF THE CLAVICLE.

DR. LANGENBUCH, of Berlin, observes (*Deutsche Med. Woch.*, January 28) that in spite of the innumerable bandages that have been contrived for treating fracture of the clavicle, so little has been done by them for retaining the reduced broken ends in their normal position, that the simplest procedures have been returned to. He now relates a case in which the replaced ends were united by means of a silver wire. A boy, ten years of age, had his clavicle fractured between its middle and external thirds, the case presenting nothing unusual beyond a remarkable mobility of the sternal end, which was dislocated behind and below. The boy having been brought under the influence of anæsthetics, Dr. Langenbuch divided the remaining portion of uninjured periosteum, and found a complete transverse fracture. He drew the ends of the fracture together by means of a hook, and having isolated them by means of strips of metal, he bored a hole in them through which he passed a silver wire, and secured them in position. Over this a Desault's bandage was applied, and the wound was dressed antiseptically. The divided periosteum was secured by a catgut suture, and the wound in the skin by a silk one. No drainage was required. The accident occurred on January 5, and at the date of the report of the case the union had become complete.

PRIZES AND PRIZE SUBJECTS OF THE ACADEMIE DES SCIENCES.

At its annual meeting, held under the presidency of Prof. Würtz, February 6, an eulogium was pronounced on Léon Foucault by M. Bertrand, the permanent secretary, after which the successful prizeholders for 1881 were announced. These, as usual, were numerous, but we can only notice the subjects which relate to medical science, referring those who wish to be made acquainted with the reasons which have induced the various committees of the Academy to make their selections among the candidates to their respective reports (which are printed *in extenso* in the *Compte-Rendu* of the Academy of the above date). 1. The Montyon Prizes, in Medicine and Surgery. One of these has been accorded to each of the following candidates:—M. Berenger-Féraud, for his works, "The Yellow Fever in Martinique" and "Diseases of Europeans in the Antilles"; to Dr. Favre, for his various works on "Daltonism," or "Colour-Blindness," published between 1854 and 1881; and to Dr. Paul Richer, for his "Clinical Studies on Hystero-Epilepsy, or Great Hysteria." Honourable Mentions are adjudged to Prof. Dastre, of the Faculté des Sciences, for his "Critical Account of Recent Works on Anæsthetics," in which he also communicates the results of his own experiments; to Dr. Dejerine, for his various contributions on Pathological Anatomy and Physiology; and to M. Toussaint, for his work on the "Immunity from Acquired *Charbon* by means of Preventive Inoculations." "Citations" are given to Dr. Beaunis, for his Human Physiology; to Dr. Budin, for his various essays in Obstetrics; to Drs. Martin-Damourette and Hyades, for their "Nutritive Effects of Alkalies"; to Dr. Guinand, for his "Syphilis in Glass-Workers"; to Dr. Lombard, for his "Treatise on Medical Climatology"; and to Dr. Pacini, for his essays on Artificial Respiration. 2. The Bréant Prize is adjudged to Prof. Léon Colin, of the Val-de-Grâce, for his "Treatise on Epidemic Diseases." 3. The Godard Prize is given to M. Dubar, for his "Tubercular Affections of the Breast." 4. Prof. Edouard van Beneden, of the University of Liège, has obtained the Serres Prize in Embryology. 5. The Lallemand Prize is now adjudged for the first time. It was founded by Lallemand for the recompensing and encouraging works relating to the nervous system, taking in the widest sense of the term; and the Academy believes that Dr. Luys' "Treatise on Mental Diseases" is thoroughly comprised within the conditions prescribed by Lallemand—it being a great recommendation, in its opinion, that the anatomy, physiology, and

pathology of the encephalon are here treated of by the same competent hand. 6. The Montyon Prize in Physiology is awarded to M. D'Arsonval, a pupil of Claude Bernard's, for the researches on animal heat which he has carried on for several years. 7. The Lacaze Prize is adjudged to Prof. Brown-Séquard, in recognition of his immense services in Physiology. Several prizes are also adjudged in Statistics, Chemistry, and Botany, the details of which we need not give.

Among the prize-questions for future years, we may notice the following:—1. The Jecker Prize of 10,000 fr. will be awarded annually to the authors of works regarded by the Academy as contributing to the progress of Organic Chemistry. 2. The Lacaze Prizes (three in number), each 10,000 fr. in value, will be adjudged in 1883 to the authors of works or memoirs which have most contributed to the progress of Physiology, Physics, and Chemistry. 3. The Desmazières Prize, consisting in a medal 1600 fr. in value, will be given in 1882 to the author of the most useful work published during the preceding year on the Cryptogama. 4. The subject of the Grand Prix des Sciences Physiques (Zoology) for 1883, consisting in a medal of 3000 fr. value, is "The Histological Development of Insects during their Metamorphoses." 5. The Gama Machado Prize, a medal of 1200 fr., will be given in 1882 for the best memoir on the "Coloured Parts of the Integumentary System, or on the Fecundating Matter of Animated Beings." 6. The Montyon Prize in Medicine and Surgery will be conferred annually, in the shape of one or more prizes, on the authors of works or well-defined discoveries which shall be deemed the most useful to the art of healing, and on those who have discovered the means of rendering an art or trade less unhealthy. 7. The Bréant Prize of 100,000 fr. was founded for the reward of the discoverer of a cure for cholera, or of the causes of this scourge. Until this happy event arrives, it has been agreed to expend the interest of the 100,000 fr. annually in recompensing those who have advanced our knowledge concerning cholera or other epidemic disease, or who may discover a radical cure for "darts," or throw light on their etiology. In order to obtain this prize, it will be requisite to have demonstrated by exact procedures the existence of matters in the atmosphere capable of operating in the production or propagation of epidemic diseases. 8. The Godard Prize of 1000 fr. will be annually awarded for the best memoir on the Anatomy, Physiology, and Pathology of the Genito-Urinary Organs. 9. The Serres Prize of 7500 fr. for the year 1884 will be given for the best work on "General Embryology applied as far as possible to Physiology and Medicine." 10. The Chaussier Prize of 10,000 fr. for 1883 will be given to the author of the memoir or work which, appearing during the preceding four years, has best advanced legal or practical medicine. 11. The Dugate Prize of 2500 fr. will be awarded for the second time, in 1885, to the author of the best work on the Diagnostic Signs of Death, and the means of preventing Precipitate Inhumations. 12. The Lallemand Prize of 1800 fr. is awarded annually for the best works relating to the Nervous System, in the largest acceptation of the term. 13. The Montyon Prize in Physiology (a medal of 750 fr.) is given annually for the best work, printed or MS., relating to Experimental Physiology. 14. The Lacaze Prize in Physiology of 10,000 fr. will be awarded, in 1883, for the work or memoir that has most contributed to the progress of Physiology. 15. The Cuvier Prize (a medal of 1500 fr.) will be adjudged in 1882 to the author of the most remarkable work which has appeared during the preceding three years on the Animal Kingdom or Geology. All essays or works must be sent in before June 1 of the respective years.

MEDICAL PRACTITIONERS IN GERMANY.—According to Börner's "Medical Calendar," in the middle of 1881 the number of medical practitioners was 17,591, and that of apothecaries 4457. There were 2576 hospital establishments, supplying 127,062 beds. Taking the whole of the German Empire there were 3.26 practitioners to 100 square kilometres, and 3.80 practitioners to 10,000 inhabitants. In the twenty medical faculties there were 195 ordinary and 136 extraordinary professors, and 186 *Privat-docenten*. In the year 1881 there were issued fifty-four publications by the various medical societies, and eighty-three medical and hygienic journals.—*Petersburg. Med. Wochenschrift*, Feb. 4.

REVIEWS.

On the Bile, Jaundice, and Bilious Diseases. By J. WICKHAM LEGG, F.R.C.P., Assistant-Physician to St. Bartholomew's Hospital, and Lecturer on Pathological Anatomy in the Medical School. London: Lewis. Pp. 719.

(Concluded from page 157.)

WITH Chapter X., page 225, begins the practical part of the book—that to which all that has gone before has only served as an introduction; and it is by this portion of the work that it must stand or fall. On the whole, we have good reason to be satisfied with it. If anything, it is too complete—too long to be read through by most men, and not very handy, were it not for an excellent index, as a book of reference; nevertheless, those who will take the trouble to read it carefully will be rewarded for their pains. This part begins with the various theories of jaundice, which the author divides into three groups—the hæmatogenous or blood theory, the suppressed function theory, and the re-absorption theory. As regards the first of these we have a good deal of repetition of what has already been said on bile colouring matters. On the whole, Dr. Legg is against such a form of jaundice, just as he is disinclined to accept the identity of hæmatoidin with bilirubin, or even the origin of the bile pigments in the blood. We confess we cannot share his opinions in this respect; and our belief is mainly founded on clinical evidence, for that derived from experiment is here of doubtful value. Thus, in the urine of dogs a substance is found which gives readily the bile colour reaction, whilst the bile acids may be found in almost any specimen of urine. But if we take certain, but not all, cases of hæmoglobinuria, we may and do have transient but well-marked jaundice, whilst the urine is full of blood-stuff. Various experimenters have in their researches found broken-down blood corpuscles, and colouring matters in the urine, whilst no real jaundice existed. In the cases of hæmoglobinuria referred to, the jaundice has been unmistakable, as well as the existence of blood-stuff in the urine. Such seems to have been the nature of a case quoted by Dr. Legg from Immermann, but explained by him in a very different and somewhat unsatisfactory manner. And what is to be said of the jaundice of yellow fever, or of the play of colours in a well-blackened eye during the process of disappearance?

The second form of belief—that the bile exists ready formed in the blood, and that the liver only acts as a kind of filter in removing it—has nowadays few supporters. By far the most popular theory of jaundice is that of re-absorption of bile; and whether it be the sole mode in which the diseased condition can be produced or not, it may be safely said to be by far the most frequent. The various forms here alluded to are—first, jaundice from obstruction of the ducts; secondly, jaundice by absorption of bile, the blood-pressure being diminished; and, thirdly, jaundice from incomplete destruction of bile absorbed into the blood. Of these, the first will be readily granted, for the pressure under which bile is secreted and makes its way out of the liver is very small, so that little suffices to obstruct the ducts. Even imperfect obstruction of the ducts will cause it; and this accounts for the many cases of jaundice seen in connexion with gastro-enteric catarrh. The second kind, supposed to be dependent on diminished blood-pressure, favouring the transmission of bile as well as of sugar into the blood, has high authority behind it to back it up, and, in a certain way, this has been called in to take the place of a hæmatogenous jaundice, as in the icterus neonatorum and the jaundice of yellow fever. But, on the other hand, it must be borne in mind that we comparatively seldom or never have jaundice in bleeding from ulcers of the stomach or bowel, which, on this theory, ought to be the case. The third theory had a strong supporter in Dr. Murchison. This predicates that the greater part of the bile colouring matter is re-absorbed and destroyed in the bloodvessels. There is far too much hypothesis about this explanation of jaundice, for in the very nature of things the absorbed bile must pass by the portal vein through the liver before reaching the general circulation, so that it is not easy to say that were a jaundice produced in this way it was not dependent on the liver itself rather than on re-absorption.

In the succeeding chapter (on the symptoms of jaundice) there is again a good deal of repetition of what has already

been said in the physiological division, but fortunately there is not much otherwise to be remarked in an invidious sense. We might refer to the fact that bile-coloured secretions or other substances are most apt to be found in jaundice when the substance is either a direct transudation from the blood, or when it is the result of inflammatory congestion. Nevertheless, all kinds of secretions may be coloured with it from time to time. As everyone knows, bile pigment is abundant in the urine of the jaundiced, and Dr. Legg suggests a good plan for determining its presence there. This is similar to the cold nitric acid test for albumen, the urine being poured on to the cold nitric acid in a test-tube, when the play of colours is seen in due order by an ascending scale. And he does good service when he insists that Pettenkofer's test for bile acids is useless when applied to bile-stained urine—the acids must first be separated in something approaching to a pure form. How important this is may be understood when we mention that, on referring to one of the best urinary text-books, we found a process quoted for determining the presence of bile acids in urine. This was to add to the suspected urine a fragment of loaf sugar, then to slowly add strong sulphuric acid so that the two would not mix (how this is possible we do not know), when, after standing a few minutes, a deep purple hue will be produced. It is as well to know that this may happen when there is no bile acid and no bile, or even in perfectly healthy urine. As to the complications of jaundice, we need only refer to wasting; itching, which is sometimes most troublesome; slow pulse; the somewhat rare yellow vision; and a tendency to hæmorrhage. Another curious concomitant of old-standing jaundice is xanthelasma.

Chapter XIII. contains an account of the morbid anatomy of jaundice; but this is strictly limited to the changes which seem to be rather consequent on than causal of jaundice. For instance, such things as cancer and cirrhosis are merely referred to, not described. The first thing that draws our attention is the dilated condition of the bile-ducts often found in jaundice, consequent on very slight degrees of obstruction. We have already remarked on the low pressure of the bile, and the ease with which its outward flow may be arrested, so that it is difficult to understand the cause of the enormous dilatation which is often found in the ducts, especially outside the liver. Their thickened walls, moreover, render this all the more remarkable. And not less curious is the appearance presented by any bile or other substance retained in the parts above the obstruction. The fluid is often colourless, containing neither bile acids nor colouring matters. In strong contrast with this is the deep colouration of the lobules of the liver itself, always deepest in the centre. Certain facts observed by Heidenhain would seem to show that the bile is first secreted, passes outwards into the interlobular region, and is there re-absorbed—to make its way, according to other observers, into the general blood-current by the lymphatics. Locally, too, as is now generally admitted, there are changes in the liver itself arising in connexion with jaundice. These are similar in all respects to some of the local changes in cirrhosis, but their exact cause is not clear. The liver-cells too undergo change, and ultimately, in a long-standing obstructive jaundice, they are more or less completely destroyed. From all this it may be easily conceived that the functions of the liver must be seriously impaired in jaundice. Very early the glycogenic function is arrested, or nearly so, whilst the secretion of bile is markedly diminished. The quantity of bile acids is most affected, but the amount of pigment is also lessened. With regard to the bile acids Dr. Legg falls into a curious miscalculation. In one page he estimates that in health about five grammes of the soda salts of bile are daily secreted; in the next he puts down the quantity of pure acid as five grammes likewise. It is evident that both estimates cannot be right. Two other functions of the liver are mentioned by Dr. Legg as being impaired—one is “the maintenance of animal heat,” the other “sanguification.” Speaking very mildly, we would say that these are too hypothetical to be discussed with satisfaction.

Of the diagnosis of jaundice little need be said: as a rule, it is not difficult. As regards its treatment, unfortunately, we are worse off; but, as usual, we must try to do something. It might be said to be almost a slur against modern medicine, that out of the 720 pages of a book like this only eight are devoted to treatment. And yet we are not sure that it is not better so. It is better,

at all events, that we should have a scanty provision of things which are fairly certain than that a volume should be flooded by oceans of trash—giving a show of knowledge where there is none, and fulfilling only the function of a will-o'-the-wisp in leading men astray.

We would gladly follow Dr. Legg into other portions of his work—especially into that which refers to acute yellow atrophy of the liver and to phosphorus-poisoning, which are really the best essays on their respective subjects now available,—but we have already exceeded our limits. We would only remark, in conclusion, that Dr. Legg, like many others, rejects the belief in bilious diseases, and accepts only gastro-enteric catarrh. In this we cannot altogether agree with him, but we have no time to argue the point. However men may differ in opinion as to the merits and demerits of this volume, all must admit that Dr. Legg has not done things by halves: every authority quoted—and their name is legion—is referred to in the original paper or treatise. We could well wish that all men were only half as careful of obedience to the sound rule—verify your references.

The Life and Work of St. Paul. By F. W. FARRAR, D.D., Canon of Westminster. Illustrated. Cassell, Petter, Galpin, and Co., London, Paris, and New York. 4to. Part I.

WE have before us the First Part of the illustrated serial edition of Canon Farrar's "St. Paul," which is being issued by Messrs. Cassell, Petter, Galpin, and Co. The work itself is so well and favourably known that any description of it would be altogether superfluous; but many of our readers may be glad to know of this new edition of it. The paper and type and general execution of the work are all that can be desired; while the numerous illustrations are very well executed, and form a valuable addition to the book as authentic representations of actual places and scenes, the artist employed having paid a special visit to the East for the purpose of making original sketches for the work. The First Part, which contains also a clear, good map in colours, showing St. Paul's first missionary journey, does great credit to the enterprising publishers; and their high reputation gives ample guarantee that the succeeding parts will be at least equally good. The work is to be completed in "about thirty parts"; and the price of each part is only 7d.

Great David's Greater Son: Some Thoughts on the Early Life of Jesus at Nazareth. By CHRISTOPHIL. London: S. W. Partridge and Co., Paternoster-row. Pp. 51. 1881.

WE have received a copy of this little work, which, we are informed, is written by a medical man, with the purpose of showing on physiological as well as Scriptural grounds that Jesus of Nazareth's continuous occupation previous to the age of thirty years was that of a carpenter. We must say that we do not quite follow the writer's argument; but that may be our fault, for we confess that we do not sympathise with the object of his little book. We are much more in accordance with him when he says, at page 15: "We may rest assured that the divinely inspired apostles recorded just so much of our Lord's life on earth as the Holy Spirit, operating through them, deemed essential and profitable." We will make only one further remark. "Christophil" says: "It would not be difficult to prove that Joseph was not a carpenter in the ordinary acceptation of the term. He was in fact a master builder—perhaps as seldom seen to work at the carpenter's bench as is a master builder of the present day." And then he adds: "I will not, however, press this argument; I will take it for granted that there was a carpenter's shed at which Joseph worked occasionally, or perhaps *continuously* [the italics are ours]; and I will go further, and say that it is not at all unlikely that the dutiful Son would often be found by His father's side helping him, and even working with the tools Himself." No more is said about the *fact* of Joseph's having been a master builder; and in like manner the writer's grasp of his main contention appears to us to escape him. And indeed we suspect that very few persons hold that "the thirty years of our Lord's private life were spent in hard laborious toil at a carpenter's bench." It must be added that our author treats of his subject in a most reverent spirit; and that his little book is very prettily brought out.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 7.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

SUPRA-RENAL CAPSULES IN ADDISON'S DISEASE.

DR. GOODHART (for the President and himself) showed the supra-renal capsules from a case of Addison's disease, in which the symptoms had been well marked, but the capsules only showed simple wasting. The patient, a male, aged twenty, had suffered for two years and a half from bronzing, and for one year and a half from excessive weariness, vomiting, etc. He died comatose. At the inspection the parts were dissected with the utmost care, but it was with great difficulty that any capsules could be found. At last, after much groping, a thin layer of pigmented substance, of the shape of the adrenal, and with the characteristic vein emerging from it, was found on each side; neither could have weighed more than fifteen to twenty grains. Their structure was hardly recognisable under the microscope, and sections of the semilunar ganglia were, Dr. Goodhart was inclined to think, more fibrous and less nervous than usual. Under these circumstances the case appeared to be a chronic neuritis of the abdominal ganglia, with wasting of the capsules. The importance of such a case in the pathology of Addison's disease was self-evident. Addison had originally attributed his disease to several affections of the supra-renal bodies, but ultimately modified his view, and had come to consider one change only—and that the yellow cheesy one—as characteristic. Since his time Dr. Wilks has proved the correctness of that opinion, and Virchow has tried to combat it; but Dr. Greenhow has given it as his opinion, derived from a careful collation of very numerous cases, that the contention of Dr. Wilks is in accord with the facts of the case. But, inasmuch as the capsule may be entirely destroyed without any bronzing, and may be entirely destroyed by this particular change without it, it is clear that neither the destruction of the capsules nor their affection by any special form of disease can be essential. There must be some other factors, and all pathologists seem ready to admit that these are to be found in the chronicity of the process and in the affection of the sympathetic in their neighbourhood. Dr. Goodhart contended that this was in accord with the well-known fact that those cases in which the duration of the disease in the capsules was short showed no bronzing, and that if it be so, then we may expect occasionally to find disease in the neighbourhood of the capsules with symptoms of Addison's disease without the special change which is so generally present. This special change is the one which *par excellence* is productive of certain results because the adrenals are prone to tubercle; and tubercle goes with just the chronic indurative process which is necessary to strangle the abdominal sympathetic and bury it in fibrous tissue. But the facts now pretty clearly proved—that a certain number of cases of Addison's disease have originated after injury; that others are associated with disease of the adjacent vertebræ; that pigmentation of the skin is occasionally, though rarely, associated with dense forms of abdominal cancer, lymphadenoma, and peritoneal tubercle,—go to show that the doctrine of Addison's disease, so generally true, is not quite so exclusively so as has been taught.

Dr. GOODHART also exhibited (for Dr. Davy, of Exeter) microscopic specimens of the skin from a similar case. A man aged twenty-five was admitted into the Devon and Exeter Hospital, under Dr. Davy's care, who for five years had noticed his skin gradually changing colour, and who had lost five situations because he always looked dirty. About the same time he began to experience the weakness, the nausea, and the pains characteristic of Addison's disease, and after remissions and exacerbations of his symptoms not unusual in the disease, he ultimately died. The inspection was made by Mr. Davy and Mr. Blomfield, and, notwithstanding a very careful dissection, no caseous disease was present, and hardly a trace of the capsules could be discovered, they were so wasted.

Mr. GEORGE EASTES had, at the President's request, sent notes of a similar case he had had, and which Dr. Wilks

had seen. The symptoms were well marked, yet at the inspection the capsules were found to be extremely wasted, and not in a condition of caseation.

The PRESIDENT remarked that Addison at one time believed that any disease of the supra-renal capsules would lead to bronzing; but he subsequently altered his views, and came to consider disease in the sympathetic ganglia as partly necessary to bring about the change. To make Dr. Goodhart's present theory quite correct, it would be necessary to get cases where the capsules were quite healthy.

Dr. NORMAN MOORE referred to a case, reported by Dr. Legg some time back, in which the capsules could not be found. It was thought that they had possibly been overlooked in some way. He had examined the microscopic sections of the plexus on the table, and failed to detect any disease in it. The ganglion cells appeared to him quite healthy. He had examined a semi-lunar ganglion in a similar case a few weeks ago, without finding any changes.

Dr. PYE-SMITH, who had seen the case during life, remarked that it was a typical instance of Addison's disease. The atrophic condition of the adrenals resembled that in a case described by Dr. Legg in the *St. Bartholomew's Hospital Reports*. He could not think that there was need to give up the view generally held in this country since it was put forth by Dr. Wilks, namely, that cancer and other accidental diseases of the adrenals do not produce the symptoms described by Addison, but that when the clinical features occur during life, both adrenals will be found after death affected with chronic interstitial inflammation—sometimes swollen, often caseous, sometimes shrunken and calcareous; and occasionally reduced to a mere remnant, as in the present case. Besides the early experiments by removal of the adrenals, attempts had been recently made to produce chronic inflammation of these organs by introducing irritant substances. The results had been negative. With respect to the hypothesis that the symptoms of the disease are due to implication of the solar plexus, and not of the adrenal itself, the fact that the suggestion has been taken up by so many eminent pathologists since it was first thrown out by Addison, and has yet never been proved, is itself against the validity of this view. We are ignorant of the function of the adrenals; probably it belongs to embryonic rather than adult life. They certainly belong neither to the glandular nor to the lymphatic system. But there is no instance of chronic inflammation in the neighbourhood of the solar plexus producing the symptoms of Addison's disease with healthy adrenals. Nor have we any reason to associate melasma of the skin in other cases with physiological or pathological conditions of the semilunar ganglia. Moreover, in the present instance, if one might assume that ganglia of men and rabbits do not greatly differ, he believed that the beautiful sections under the microscope were those of normal tissues.

Dr. COUPLAND, whilst admitting the "seductive" character of the neurotic hypothesis, could not see that it should be disregarded for that reason. He considered there were analogies to the symptomatology of Addison's disease in conditions where disturbance of the abdominal sympathetic might safely be predicated. Thus, for example, pregnancy in its symptoms of cutaneous pigmentation and neurosal vomiting offered a striking analogy. In one case he had seen about three years ago, and recorded (*Medical Times and Gazette*, January 29, 1881), the symptom of vomiting was strikingly like that of pregnancy, both in its time and mode of occurrence, and in its nature. In that case, which ran a rapid course after the first onset of symptoms, the semilunar ganglia were structurally altered, there was undoubted increase of interstitial tissue, and also atrophy of nerve-cells. But it was conceivable that the symptoms might be produced without there being necessarily any structural change set up in these nerve-centres, and yet that they might be due to a disorder of these centres. Only in that way could an explanation be afforded for the class of cases referred to by Dr. Pye-Smith, when no changes were found in the sympathetic. On the other hand, the manner in which these centres were involved may be necessary for the production of the complex of symptoms characterising Addison's disease; for there could be no doubt that the ganglia may be damaged without the production of these symptoms. A few years ago he examined the body of a man with aneurism of the celiac axis. The case was under the care of Dr. Cayley, and had been treated by compression

of the aorta. The ganglia and plexuses were adherent to and flattened out over the aneurism, yet during life no symptoms like those of Addison's disease had been present. As to the character of the change in the supra-renal capsules in Addison's disease, Dr. Coupland doubted if there was anything specific in it. He believed it to be of the nature of a local tuberculosis, and had met with it as a fibro-caseous destruction in at least one subject of phthisis, apart from any symptoms of Addison's disease being present. Such instances and the fact of total destruction of the capsules by cancer seemed to require the introduction of a particular disorder of the sympathetic to account for the symptoms of Addison's disease. The tubercular change might remain localised to the capsules, and either form part of a general tuberculosis or be limited to them, primarily arising there; and in either case it might, by reason of their nerve-relations, influence the abdominal sympathetic.

Dr. CREIGHTON said the adrenals clearly had a function to perform; for it had been shown that the blood issuing from them gave different chemical reactions from that which issued either from or was supplied to any other organs. He propounded whether bronzing might not be due to suppression of this function in cases of caseous degeneration, in consequence of which the blood-flow was greatly diminished; while in cancer there was no bronzing, because the blood-flow through these organs was rather increased than diminished in quantity.

Dr. FOWLER referred to a case of lymphadenosis, in which there was great bronzing, but no disease of the capsules. On the other hand, the abdominal sympathetic was largely implicated in the lymphoid disease.

Dr. GOODHART replied. He asked to have the specimens referred to a special committee, and that Dr. Coupland might be nominated on it.

For this purpose the President named Dr. Coupland, Dr. Creighton, and Dr. Fowler, along with Dr. Goodhart.

TRICUSPID INCOMPETENCY.

Dr. BEDFORD FENWICK showed a specimen of tricuspid incompetency secondary to mitral stenosis, from a married female, aged forty-nine, who died last year in the London Hospital. The main clinical symptoms were intense orthopnoea, palpitation, oedema, and cyanosis. The jugular veins were much distended. There was a soft systolic murmur at the ensiform cartilage, and a rough diastolic murmur down the sternum. The heart's impulse was very feeble and diffused. Notes taken some months previously showed that there then existed a rough presystolic murmur and thrill at the apex, with heaving powerful cardiac action. On post-mortem, the right auricle and ventricle were much dilated, the mitral orifice contracted, the tricuspid much dilated, the circumference of the former being one inch and three-quarters, of the latter five inches and seven-eighths. The pulmonary and aortic valves were healthy. He then briefly summarised the facts of all the recorded cases of primary tricuspid incompetency he had been able to find (fifteen in number), the average ages being—males 51 years, females 47·4 years; contrasting remarkably with those figures in tricuspid stenosis, where the average ages at death were—males 36·4 years, females 31 years. It certainly seemed as if the patients with incompetency died at a later age than those in whom stenosis existed. As to sex, eight of the cases were males, and seven females. In tricuspid stenosis he showed that of sixty-one cases, fifty-five were females and only six males. As to the state of the valves, in every male case incompetency resulted from puckering and shrinking from old disease; but in three out of the seven female cases the valves were adherent to the ventricular walls, and in only four had puckering of the valves' structures caused their insufficiency. It was quite certain, then, that valve adhesions chiefly occurred in women. Briefly criticising the French and German theories of stenosis and incompetency, he advanced a new hypothesis—that they resulted from a purely mechanical cause, the amount and extent of valve separation and movement while inflammatory endocarditis of the valve-edges was going on. If little separation, union of the apposed edges would take place; if much movement, this would be prevented. As in women the back pressure was naturally less than in men, stenosis would therefore be more common in them, and, for the opposite reason, incompetency in men. He claimed that the hypothesis was simple and rational, because it explained

the phenomena, and that, if true, its practical importance to treatment would be considerable.

CONGENITAL TUMOUR OF THE NECK.

Dr. SHATTOCK showed this specimen. It was congenital, resembled the congenital sacral tumour. He was not inclined to think that they grew from the intercarotid gland, had been suggested by some authors. Microscopically, consisted of embryonic tissue containing some cartilage, and in places lacunæ lined with spheroidal epithelium, had originated probably in some aberrant embryonic structures.

Dr. GODLEE thought the tumour resembled very much a cystic hygroma of the neck, which was made up of cysts lined with lymphatic epithelium.

Dr. TREVES referred to a case of attached fœtus which had recently shown to the Society, and which resembled one now under discussion. In his own case, however, the tumour had contained bones and other foetal remains, which negatived their origin in Luschka's gland.

Dr. PARKER said the so-called cystic tumours very often contained a large amount of solid material, which was most abundant near their base of attachment. After tapping and removal of the liquid portions, these solid parts at once became obvious. Mr. Shattock's case was apparently one in which the solid parts predominated. These congenital cysts of the axilla, which were almost identical with those in the neck, were, however, he thought, much less common. He intended to show such a case shortly.

CASE OF ACUTE FARCY IN MAN.

Dr. HOWARD BENDALL said this was a case of a healthy man who was inoculated from a horse suffering from farcy. When first seen, he was suffering from multiple abscesses, which were chiefly situated in the neighbourhood of the joints. Shortly afterwards the characteristic pustular eruption appeared on the skin, and signs of pneumonia superadded, accompanied by dyspnoea. The dyspnoea rapidly increased, and the patient died comatose. The objects of chief interest at the autopsy were the lungs. These were both greatly congested, the left lung showing, in addition, extensive lobular pneumonia of the left base. Microscopically, the lungs were crowded with fatty emboli; hence the intense dyspnoea. In addition to this, the pus from the abscesses was found to contain free oil in considerable quantity; whilst sections from the neighbourhood of the ulcers on the skin and mucous membrane showed the tissues to be in a state of rapid necrosis, in which almost all the cell elements had disappeared. The tissues in these parts were loaded with amorphous fat granules of all sizes.

Dr. BENDALL asked why the term "acute farcy" was used in preference to the more ordinary term "glanders." He had seen four cases which presented symptoms similar to those just described, and which he had regarded as glanders. Mr. GODLEE said the author of the article on Glanders in Leemssen's Encyclopædia of Medicine stated that all cases in man sooner or later got nasal symptoms. He had seen two cases in which the nasal symptoms had only appeared late on in the disease.

Dr. HOGGAN had examined one case, and found the lymphatic channels plugged with pus cells.

Dr. COUPLAND had about ten years ago recorded a case of disease resembling clinically that related by Dr. Bendall, under the title of acute glanders (*Medical Times and Gazette*, October, 1872). He did so because of the presence in some of the viscera of growths described by authors as characteristic of glanders.

Mr. MORRIS was most interested in the occurrence of fat emboli in the lungs—a condition hitherto only associated with injuries to bones.

Dr. BENDALL replied. He called this "farcy" because the nasal symptoms came on early, and were the most marked feature of the disease.

SCALD OF THE FAUCES.

Mr. DAVIES-COLLEY showed the lungs, larynx, œsophagus, and fauces of a child nearly two years old, who had died the day before in Guy's Hospital from a scald through inhaling the steam of boiling water. When admitted the child was collapsed, and there was some dyspnoea. The fauces were inflamed, but it was not found necessary to perform tracheotomy. On the fourth day lung symptoms developed them-

selves, and on the sixth the child died. Post-mortem examination showed the existence of a membranous slough from the fauces to the stomach, but no further down the larynx than the ventricles. There was also extensive bronchopneumonia, although the trachea and larger bronchi were unaffected. The interest of the case lay, firstly, in the similarity of the membranous slough to that found in diphtheria; secondly, in the fact that inflammation of the lungs had occurred, although the intermediate parts had escaped; and thirdly, in the probability that such inflammation had often been ascribed to tracheotomy when the real cause had been the lesions produced by the scald.

[It is to be regretted that the late hour at which this case came on prevented any discussion upon it.—Reporter.]

COMPARATIVE PATHOLOGY—FEMUR OF A PUMA.

Mr. MORRIS (for Mr. Sutton) showed a case of old injury to the femur of a puma. The muscles of the right leg were wasted; the head of the femur was atrophied; it had been displaced and was attached to the ilium by fibrous adhesions. The patella was also displaced, and its cartilage eroded.

PNEUMOTHORAX IN A COATI.

Mr. MORRIS also showed this case, which, like the preceding one, had been sent from the Zoological Gardens. The conditions were identical with those found in the human subject.

CYSTIC DISEASE OF THE KIDNEY.

Mr. J. HUTCHINSON, jun., showed a well-marked specimen of this disease, removed from a female pig. The animal had been killed for food, and appeared quite healthy. The condition of the opposite kidney had not been remarked. There was little or none of the kidney left in the specimen shown. In a previous case his father had suggested disease of the vesiculæ seminales as the probable cause; the present case would show that this could not be the only cause.

The Society then adjourned.

MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH. — DOUBLE QUALIFICATION. — The following gentlemen passed their First Professional Examination during the February sittings of the examiners:—

John James Oakeshott, Highgate; John Fitz Gerald Burke, Ennis; Charles Horace Barkley, London; Lawrence John Raymond Louis Quin, Belfast; Charles Cumberland Brodrick, Jersey; Arthur Charles Kemble, Essex; Arthur Foulds Thomas, Halifax; Richard Cody Rowan, Hamilton; Arthur Herbert Butcher, Ripon, Yorkshire; Michael Joseph Molony, Caher, Ireland; Hunter Urquhart Walker, Madras; Charles Alfred Mitchell, Dewsbury; George Easingwood Blanshard, Edinburgh; Robert Buck Carruthers, Wigton, Cumberland; John William Dunbar Hooper, Dinapore, India; John Powell, South Wales; William MacDermott, Ballymoney; John Charles King, Galway; Charles Maxwell, Lockerbie; Samuel William Brierley, Victoria, Australia.

The following gentlemen passed their Final Examination, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

Hamilton Meikle, Alabama; Joseph Balfe, Dublin; Augustus William Thomas, Swaffham; George Reginald Eakins, county Tyrone; John Burdon, county Durham; Joseph Hysanth Tynan, Edgeworthstown; Walter Spencer, Yorkshire; Francis Woore, Guernsey; William Robert Allen, county Antrim; William Pennefather Warren, Queenstown; Thomas Galland Charis Hesk, Derbyshire; Arthur Edward Blacker, Somersetshire; George Wiston Baker, London; George Arthur Packer, Bolton; Frederick Anastasius Saunders, London; Marcus William Alattson Keane, Whitby, Yorkshire; John Fitz Gerald Burke, Ennis; Joseph Wallace Duncan, Donegal; Alfred Ellison Muncaster, Manchester; Adam Robert Hamilton Oakley, Highgate; George Dobson Crowther, Yorkshire; Arthur Edward Cecil Spence, Allahabad; Henry Ralph Gatley, Park, near Truro; George Jukes, Cumberland; Thomas Wild Pairman, Biggar; Thomas Aitchison, Northumberland; George Savage Martin Baxter, Brighton; William Patrick Kirwan, Galway; Henry Hele Bate, Swansea.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their First Professional Examination during the recent sittings of the examiners:—

Harry Graham Smith, Edinburgh; Frank Sturges, London; Elwes Steele, Monmouthshire; Thomas Tenison Collins, Tipperary; Frederick John Bateman, Norwich.

The following gentlemen passed their Final Examination, and were admitted Licentiates of the College:—

Charles Dundee, Bruslee, Ireland; Hormasjee Edaljee Banatvala, Bombay; George Henry Butler, Christchurch, Hants; Archibald Clarke Robinson, county Antrim; Septimus Lowes, Newcastle-on-Tyne; Michael Joseph Collins, Cork; James Shedden Elder, Eaglesham.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, February 6, 7, 8, and 9, the following candidates were successful:—

For the Licence to practise Medicine—

Dillon, Henry Vincent.	Nicolls, John Patrick.
Elsner, Frederick William.	O'Doherty, Michael Joseph.
Gray, William Dargan.	Pim, Francis Edward.
Hennessy, Thomas James.	Porter, Charles Frederick.
Laffan, James Thomas.	Scott, John Alfred.

Underwood, Charles Henry Freeman.

For the Licence to practise Midwifery—

Elsner, Frederick William.	O'Doherty, Michael Joseph.
Gray, William Dargan.	Pim, Francis Edward.
Laffan, James Thomas.	Porter, Charles Frederick.
Nicolls, John Patrick.	Scott, John Alfred.

Underwood, Charles Henry Freeman.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership, have been duly admitted to the roll of Members of the College:—

Beatty, John Guinness, 1866, Dublin.
Coppinger, Charles Philip, 1871, Dublin.
Clibborn, James Barclay, 1876, Surgeon R.N., China.
Twiss, George Edward, 1878, Surgeon A.M.D.

(The numerals indicate the year in which the Licentiate-ship in Medicine of the College was obtained.)

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 9:—

Crone, John Smyth, Evershot-road, Tollington-park, N.
Dunn, Louis Albert, Cavendish-place, Brighton.
Erulkar, Solomon Abraham, The Avenue, Acre-lane, Brixton.
Phillips, Henry Astley, 27, Leicester-square, W.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Cardwell, Thomas, Guy's Hospital.
Littlewood, John Osceot, Guy's Hospital.
Milnes, John George, Guy's Hospital.
Hoyland, Stanley Stenton, St. Bartholomew's Hospital.
Spencer, Walter, Charing-cross Hospital.

The following gentleman passed in Elementary Chemistry on the 27th ult.:—

Jollye, Francis William.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BLAXLAND, HERBERT, L.R.C.P.L. and M.R.C.S.E.—Medical Superintendent of the Hospital for the Insane at Callan Park, N.S.W., vice Dr. Scholes, resigned.

BIRTHS.

CANTON.—On February 9, at 17, Great Marlborough-street, W., the wife of Frederic Canton, M.R.C.S., L.R.C.P., L.D.S., of a son.
DEMPSEY.—On February 15, at 27, Charterhouse-square, E.C., the wife of Meldon Dempsey, M.D., of a daughter.
FRANKLIN.—On February 9, at Leicester, the wife of George C. Franklin, F.R.C.S., of a daughter.
HOWARD.—On January 26, at Montreal, Canada, the wife of R. Palmer Howard, M.D., of a daughter.
MACNAB.—On February 9, at Bury St. Edmunds, the wife of Robert Macnab, M.D., F.R.C.S., of a son.
MAISEY.—On February 8, at Charlbury, Oxon, the wife of Frederick Thomas Maisey, M.R.C.S., L.S.A., of a daughter.
MORRIS.—On February 6, at Upper Welland-terrace, Spalding, the wife of Clarke Kelly Morris, M.R.C.S., of a son.
MURRAY.—On February 11, at The Parks, Tenbury, Worcestershire, the wife of W. Berkeley Murray, M.D., of a son.
PHILPOTS.—On February 8, at Moorcroft, Parkstone, Dorset, the wife of John R. Philpots, L.R.C.P., L.R.C.S., of a daughter.
SANCTUARY.—On February 5, at Penpol-terrace, Hale, Cornwall, the wife of Thomas Sanctuary, M.D., of a daughter.
THOMPSON.—On February 8, at Wellington-square, Oxford, the wife of Harold Thompson, M.R.C.S., prematurely of twin girls, who survived their birth but a few hours.
WALKER.—On February 6, at Hotham House, High-street, Putney, the wife of Alexander Walker, M.D., of a son.
WEATHERLY.—On February 9, at Portishead, Somerset, the wife of Lionel Alexander Weatherly, M.D., of a daughter.

WEBB.—On February 11, at New-street House, Basingstoke, the wife of Frere Webb, F.R.C.P., of a daughter.

MARRIAGES.

BRETT-TULLOCH.—On January 16, at Sialkot, Punjab, Arthur H. Wilford Brett, Lieutenant Royal Horse Artillery, to Isabella Emma second daughter of Brigade-Surgeon J. Tulloch, M.D., Army Medical Department.

MURPHY-LOS.—On February 9, at the Hague, James Murphy, M.D. Holly House, Sunderland, to Adelaide Harriett Lucretia, eldest daughter of Peter Roland Los, Esq., of the Hague, formerly Consul for Netherlands at Sunderland.

VERBALL-CATT.—On February 11, at Brighton, Thomas Jenner Verball, M.R.C.S., L.R.C.P., to Mary Elizabeth, eldest daughter of Charles C. Esq., of Brighton, and Summer Hill, Lindfield.

DEATHS.

BARNARDO, TOM, son of T. J. Barnardo, F.R.C.S.E., at The Cedars, St. Hackney, on February 12, aged 6 months.

COWAN, ALEXANDER OSWALD, M.D., at 12, Church-hill, Edinburgh, February 6, aged 47.

DUPLEX, GEORGE, M.D., at 60, Torrington-square, W.C., on February 12, aged 78.

GADSBY, JOHN TOPHAM, M.D., at Mansfield, on February 9, aged 23.

GILES, PETER BROOME, M.R.C.S., at Staunton-on-Wye, near Hereford, February 5.

JOUBERT, SIDNEY MELVILL, the only surviving child of Surgeon C. Joubert, M.B., at Calcutta, on February 5, aged 4.

KIRK, JAMES BALFOUR, M.D., at Bathgate, N.B., on February 5, aged 23.

MOFFITT, ANDREW, Surgeon-Major Army Medical Department, 20, Carlton-crescent, Southampton, on February 8.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, MARGARET-STREET, CAVENTISH-SQUARE, W.—Two Visiting Physicians. (For particulars see Advertisement.)

NATIONAL DENTAL HOSPITAL, 149, GREAT PORTLAND-STREET, W.—House-Surgeon. Candidates must possess an L.D.S. degree. Applications with testimonials, to be sent to Arthur G. Klugh, Secretary, on or before February 24.

NEWCASTLE-UPON-TYNE INFIRMARY.—Senior House-Surgeon. Candidates must be registered in medicine and surgery, unmarried, and free from the care of a family. The election will take place on March 1 at twelve o'clock, when selected candidates, to whom notice will be sent, are to be in attendance. Further particulars may be obtained from the Secretary at the Infirmary. Applications and testimonials to be addressed to the Chairman of the House Committee before February 24.

POPULAR HOSPITAL FOR ACCIDENTS, BLACKWALL, E. (OUT-PATIENT DEPARTMENT).—Honorary-Surgeon. Candidates must be duly qualified and registered. Applications to be sent to the Secretary before February 21.

ROTHERHAM HOSPITAL.—Resident House-Surgeon. Candidates must be members of the Royal College of Surgeons of England, and Licentiates of the Society of Apothecaries, or of the Royal College of Physicians of London; registered and unmarried. Preference will be given to those candidates who have held the office of House-Surgeon or Assistant House-Surgeon in a large hospital or infirmary for at least two months. Applications, with testimonials as to professional ability and moral character, to be sent to John Barras, Hon. Secretary, on or before February 23.

WEST LONDON HOSPITAL, HAMMERSMITH.—Assistant-Physician. Candidates are required to be Fellows or Members of the Royal College of Physicians of London, and not to be practising as apothecaries. Applications and testimonials to be sent to R. J. Gilbert, Secretary, up to March 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population computed according to the census of 1871.

RESIGNATIONS.

Haltwhistle Union.—Mr. R. Gill has resigned the Southern District: area 21,076; population 700; salary £6 per annum.

Huddersfield Union.—Mr. C. J. Trotter has resigned the Deanho Workhouse: salary £40 per annum.

Winslow Union.—Mr. H. Collins has resigned the Workhouse: salary £— per annum. Also the First District: area 8610; population 180; salary £61 10s. per annum.

Workop Union.—Dr. Gowan has resigned the Auston District: area 9067; population 2223; salary £25 per annum.

APPOINTMENTS.

Birmingham Parish.—Richard H. Cowan, M.R.C.S. Eng., L.S.A., Resident Assistant Medical Officer at the Workhouse.

Carnarvon Union.—William L. O. Williams, M.B. and C.M. Edin., the Llanrug District.

Huddersfield Union.—Thomas E. Abbott, L.S.A., to the Almond District.

Ticehurst Union.—William E. Barton, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., to the Burwash District.

TAL STATISTICS OF LONDON.

Week ending Saturday, February 11, 1882.

BIRTHS.

Births of Boys, 1535; Girls, 1416; Total, 2951.
Corrected weekly average in the 10 years 1872-81, 2792.1.

DEATHS.

	Males.	Females.	Total.
during the week	1324	1308	2632
average of the ten years 1872-81, } corrected to increased population ...	940.5	944.9	1885.4
of people aged 80 and upwards ...	...	...	117

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
...	668993	...	3	1	2	36	...	3	...	...
...	905677	...	13	8	6	40	2	4	...	1
...	281793	1	...	1	1	21	1	2	...	...
...	692530	3	8	4	3	82	...	2	1	1
...	1265578	13	17	6	4	82	2	1	...	6
...	3814571	17	41	20	16	261	5	12	1	8

METEOROLOGY.

From Observations at the Greenwich Observatory.

Height of barometer ... ..	...	...	...	...	...	30.172 in.
Temperature ... ..	...	...	...	...	...	38.1°
Point of thermometer ... ..	...	...	...	...	...	52.8°
Point of thermometer ... ..	...	...	...	...	...	26.5°
Low-point temperature ... ..	...	...	...	...	...	34.9°
Direction of wind ... ..	...	...	...	...	...	Variable.
Amount of rain in the week ...	...	...	...	...	...	0.00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Feb. 11, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Feb. 11.	Deaths Registered during the week ending Feb. 11.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London	3891078	2951	2632	35.3	52.8	26.5	38.1	3.39	0.00	0.00
Edinburgh	109595	60	58	26.7	45.2	29.0	37.3	2.95	0.00	0.00
Birmingham	129916	90	66	26.5	...	...	...	...	...	...
Manchester	93821	49	40	23.5	...	...	...	...	...	...
Leeds	74449	34	35	24.5	...	...	...	...	...	...
Sheffield	210184	139	97	24.1	49.1	31.2	38.8	3.78	0.02	0.05
Nottingham	76756	52	41	27.9	44.6	32.4	38.4	3.55	0.25	0.63
Cardiff	408532	314	168	21.2	...	...	...	...	...	...
Southampton	126276	92	55	22.7	51.0	30.8	39.6	4.23	0.09	0.23
Gloucester	193573	123	96	25.9	46.7	29.0	38.6	3.67	0.08	0.20
Exeter	83587	53	31	19.4	...	...	...	...	...	...
Truro	86592	57	24	14.5	...	...	...	...	...	...
Swansea	560377	420	293	27.3	...	...	...	...	...	...
Cardiff	106767	87	58	28.3	...	...	...	...	...	...
Cardiff	340211	256	210	32.2	...	...	...	...	...	...
Cardiff	184004	139	95	26.9	...	...	...	...	...	...
Cardiff	115572	77	67	30.2	...	...	...	...	...	...
Cardiff	106460	74	71	34.8	...	...	...	...	...	...
Cardiff	97656	74	52	27.8	...	...	...	...	...	...
Cardiff	83418	66	38	23.8	...	...	...	...	...	...
Cardiff	74713	41	31	21.6	...	...	...	...	...	...
Cardiff	188101	111	78	21.6	50.6	36.6	42.0	5.56	0.02	0.05
Cardiff	315998	232	127	21.0	48.0	37.0	41.7	5.39	0.02	0.05
Cardiff	290516	234	128	23.0	49.0	34.5	40.4	4.66	0.05	0.13
Cardiff	158814	131	70	23.5	48.0	31.0	39.5	4.17	0.00	0.00
Cardiff	119065	101	55	24.1	54.0	35.0	43.5	6.39	0.01	0.03
Cardiff	147626	93	85	30.1	...	...	...	...	...	...
Cardiff	89724	65	35	21.1	...	...	...	...	...	...
28 towns	8455820	6220	4832	29.8	54.0	26.5	39.8	4.34	0.05	0.13
Cardiff	232440	115	84	18.9	54.8	32.3	43.0	6.11	0.12	0.30
Cardiff	514048	314	276	23.0	51.0	35.5	43.6	6.45	0.75	1.90
Cardiff	348293	198	224	33.6	55.0	33.5	44.0	6.67	0.47	1.19

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30.17 in. The highest reading was 30.37 in. on Tuesday morning, and the lowest 29.66 in. at the end of the week.

NOTES, QUERIES, AND REPLIES:

Be that questioneth much shall learn much.—Bacon.

Rex.—Modern embalment has been studied scientifically by Dr. W. E. Richardson. See *Medical Times and Gazette*, January 16, 1875.

Natation.—When the attention of the President of the Local Government Board was directed in the House of Commons to the loss of life during the bathing season last year, he said that, although he could not give an undertaking to introduce a Bill specially for the purpose, he would consider the matter during the recess, and if, in connexion with other legislation this year, he could see his way to compel local authorities of inland and seaside watering-places to have men and apparatus always in readiness to assist in saving life, he would not fail to do so.

J. H. C., Suffolk.—The appointment of medical officer of health was first made compulsory by the Public Health Act of 1872 (now consolidated and embodied in the Public Health Act of 1875). A medical officer of health may exercise any of the powers with which an inspector of nuisances is invested by the Act.

Condemned Meat.—A butcher of Alpraham, Crewe, has been sent to prison for three months in default of paying a fine of £20 inflicted upon him for having exposed diseased meat for sale.

Insanitary Condition of Claremont.—The drainage of the residence of Prince Leopold being found defective, a thorough overhauling is in progress. It is stated that the sanitary arrangements were about as bad as could be imagined. The new drainage works are on a most extensive scale.

Legislation for Smoke Consumption.—Mr. Cubitt proposes to move on an early day for the appointment of a Select Committee of the House of Commons to consider to what extent the fogs of London are injurious to life, health, and property; whether they have increased and are increasing from causes which are controllable; whether the existing Acts of Parliament relative to the consumption of smoke are applicable to the present state of the metropolis, and can still be enforced; and whether alteration and extension of this legislation would be beneficial.

A Lucky Doctor.—A sarcastic and would-be witty contemporary, in recording that a medical man of Rochester, United States, has earned a private box in the Opera House there for the rest of his life, because his patient, the builder and owner, although sick, did not die, but saw the completion of his Opera House, remarks—"This is reversing the order of things. It is more apt to be the doctors who confer private boxes upon their patients."

Diseased Meat, Glasgow.—Dr. Russell, the Medical Officer of Health for this city, reports the sale within it of sixty-three animals suffering from disease, which had been dressed and forwarded to Glasgow for sale, the entire number being disposed of in the market except one which failed to pass examination. The Health Committee is about to consider the whole question of the inspection of dead meat in the market.

Medical Charities, Sheffield.—The annual collections were made on the 29th ult., but as the weather was bad it was decided that there should be another collection, which took place on the 5th inst. The total realised was £1947—a decrease of nearly £200 compared with last year.

The Mental Condition of Persons under Remand.—At the inquest on the body of the man Kavanagh, who hanged himself in the House of Detention, Clerkenwell—he having taken poison at Notting-hill a few days previously, and been committed to prison charged with causing the death of his wife by the same means,—the jury, in recording their opinion that the deceased man was of unsound mind, added that a better system should be adopted for making known to the prison authorities the mental condition of persons under remand or awaiting trial.

English Students in Trinity College, Dublin.—It is said that the recent census of this College disclosed the fact that 300 young Englishmen were receiving instruction there. Collegiate residence fees are moderate in Dublin University, but residence in college is not compulsory.

Noxious Vapours.—The annual report for the past year of the Manchester Association for Controlling Noxious Vapours expresses mingled feelings of disappointment and satisfaction with the work of the year; for while many of their hopes have not been realised, the Committee still feel that substantial progress has been made. It has been thought desirable that this Association and the Sanitary Association (of which there are already several allied branches) should be combined, with a view to mutually extending their spheres of usefulness. Each will do its separate work, but the annual meeting will be common to both.

Health Lectures for the People.—On behalf of the Manchester and Salford Sanitary Association, Mr. Philip Birch, M.R.C.S., last week delivered the first half of a lecture "On Scarlet Fever and Diphtheria" to the employés at the Gorton Tank. The principles of infection and disinfection were then discussed, together with the precautions to be taken during an epidemic. The lecturer concluded with an explanation of the method in which a case nursed at home should be managed, with a view to the prevention of the spread of infection.

An Example not to be Despised.—A Fleet-street tradesman has placed in his window a printed request to orange-eaters not to throw the peel on the pavement.

Anti-vaccination Astuteness.—A point successfully raised at the Brighton Police-court last week, in two cases of persons summoned for non-compliance with the Vaccination Acts is worthy of attention. It was submitted that as there was no evidence of the defendants having been resident in Brighton at the date when the informations were sworn, there was no proof of their being within the jurisdiction of the vaccination officer. The Bench dismissed both cases with costs.

A Remonstrance.—The Islington Board of Guardians has unanimously adopted the following resolution:—"That in the opinion of this Board the lavish expenditure by the Metropolitan Asylums Board of £557 5s. 1d. in the half-year ended Lady-day, 1891, and the estimated expense of £1000 during the present half-year, for the care and maintenance of the unused Hampstead Hospital is an unnecessary waste of the ratepayers' money; and that the two representatives from that parish be requested to urge upon the Asylums Board the advisability of disposing of the valuable freehold estate, building, and fittings, and applying the proceeds to lessen the large demand of £240,000 for this half-year, and nearly as much for the next half-year, from the over-burdened ratepayers." A copy of the above was ordered to be forwarded to the Local Government Board, the Poor-law guardians, and vestries in the metropolis.

Nostrums.

"What agrees with his stomach, and what with his head,
The drinker may feel, though he can't write or read.
Then authority's nothing: the doctors are men:
And who drinks tar-water will drink it again."

Liverpool Royal Infirmary.—A very unsatisfactory account of the financial condition of this institution was given at the recent meeting of the trustees. Mr. Rathbone, M.P., after referring to the necessity for a new building, said he believed the people of Liverpool would heartily respond to any appeal that might be made to them on behalf of the Infirmary; the institution ought to be placed on a thoroughly efficient basis.

Ambitious.—1. Yes. 2. "These failures, however frequent, may admit of extenuation and apology. To have attempted much is always laudable, even where the enterprise is above the strength that undertakes it. To rest below his aim is incident to everyone whose fancy is active, and whose views are comprehensive; nor is any man satisfied with himself because he has done much, but because he conceives little."

A Contradiction of Unfounded Reports.—Mr. J. M. Cook, of the firm of Thomas Cook and Son, writes from Cairo that the Sanitary Administration assure him positively that there has never been the slightest ground for the reports appearing in England of either cholera or small-pox. On the contrary, the general health has never been better than it is at the present time. The quarantine enforced against steamers coming from India is for the express purpose of keeping out any epidemic.

COMMUNICATIONS have been received from—

Dr. FOWLER, London; Mr. HUSSEY, Oxford; THE SECRETARY OF THE SANITARY INSTITUTE, London; Dr. BLAXLAND, New South Wales; Dr. LUCAS, Ahmedabad; Mr. H. EADE, Birmingham; THE SECRETARY OF THE ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, Edinburgh; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE REGISTRAR-GENERAL FOR SCOTLAND; Dr. HERMAN, London; Dr. ANDERSON, London; THE HONORARY SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE PATHOLOGICAL SOCIETY OF LONDON; Dr. LATHAM, Cambridge; THE SECRETARY OF THE MICROSCOPICAL SOCIETY, London; Dr. SAUNDY, Birmingham; THE SECRETARY OF THE CLINICAL SOCIETY OF LONDON; Dr. NORMAN KERR, London; Mr. EDWIN RAINBOW, Coventry; THE SECRETARY OF THE ANTHROPOLOGICAL SOCIETY, London; Dr. MOORE, Dublin; THE SECRETARY OF THE ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, London; MESSRS. CALVERT AND CO., Manchester; MESSRS. CHAPMAN AND CO., London; THE TRUSTEES OF THE PRABODY DONATION FUND; THE SECRETARY OF THE ROYAL INSTITUTION, London; THE SECRETARY OF THE HUNTERIAN SOCIETY, London; THE SECRETARY OF THE PARKES MUSEUM OF HYGIENE.

BOOKS, ETC., RECEIVED—

The Sun, by C. A. Young, Ph.D., LL.D.—Congreso Médico-Internacional de Londres—Report on Diphtheria, by Franklin Staples, M.D., Winona—Report on the Health of the Borough of Gateshead for 1891—Clinical Lectures on Senile and Chronic Diseases, by J. M. Charcot—Opium-Smoking, by H. H. Kane, M.D.—The Medical Register, 1892—The Dentists' Register, 1892—On Hemorrhoidal Disorder, by John Gay, F.R.C.S.—The Influence of Vivisection on Human Surgery, by Sampson Gamgee, F.R.S.E.—Report on the Health, etc., of Kensington, January 1 to 28—On Cancer of the Breast, by T. W. Nunn, F.R.C.S.—Ciste Dermoides dell'Ovaio, per Dott. Antonino Turreta—Report of the Bourton-on-the-Water Cottage Hospital for 1891—Materia Medica and Therapeutics, by Charles D. F. Phillips, M.D.—Report of the Health Committee of the Borough of Nottingham—El Positivismo y el Sistema de Luys, por el Dr. D. Arturo Perales Gutierrez.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students'

Journal and Hospital Gazette—Centralblatt für Gynäkologie—Garden Magazine—Therapeutic Gazette—New York Medical Journal, etc.—Alienist and Neurologist—The Argus, Melbourne, December 14, 1890—El Sentido Católico en las Ciencias Médicas—La Independencia Médica—Medical News—Chicago Medical Review—North Carolina Medical Journal—Atlanta Medical Register—Canadian Journal of Medical Science—Lincolnshire Chronicle—L'Impartialité Médicale—Journal the Vigilance Association—Scotsman, February 11—Maryland Medical Journal—Dublin Journal of Medical Science.

APPOINTMENTS FOR THE WEEK.

February 18. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Mr. W. Watkiss Lloyd, "The Iliad and Odyssey."

20. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. J. Braxton Hicks, "On the Cases of Abdominal Disease of Clinical Interest." Dr. Day, "Details of a Case of Inflammation of the Appendix Vermiformis, followed by Fatal Peritonitis." Mr. Spencer Watson, "Notes of a Case of Gall-Stone impacted in the Bowel, and simulating Abdominal Tumour." Mr. Parrott will exhibit Gall-Stone of Unusual Size. The President will also exhibit Gall-Stones.

21. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Westminster, 3 p.m.
ROYAL INSTITUTION, 3 p.m. Professor John G. McKendrick, "On the Mechanism of the Senses."
STATISTICAL SOCIETY, 7½ p.m. Monthly Meeting.
ANTHROPOLOGICAL INSTITUTE, 8 p.m. Mr. J. E. Price, "Note on Agnathism." Mr. A. Macfarlane, "On Analysis of Relationships of Consanguinity and Affinity." Mr. A. W. Howitt and Rev. Lorimer Fishenden, "From Mother-Right to Father-Right."

PATHOLOGICAL SOCIETY, 8½ p.m. Specimens: Dr. S. West—(1) Cardiac Hypertrophy; (2) Acute Fatty Degeneration of Heart. Dr. Norman Moore—(1) Specimens of Gout; (2) Osteoma of Tibia. Dr. Hale White—Changes in Medulla Oblongata causing Sudden Death. Mr. Ross Williams—(1) Sarcoma of Bladder; (2) Arthritis of Wrist-Joint. Mr. Godlee—Femoral Arteries tied for Aneurism. Mr. Davies Colley—Congenital Hypertrophy of Toes. Dr. Baxter—Chronic Hydrocephalus. Mr. Jonathan Hutchinson—(1) Anomalous Nerve Disorder in Infancy; (2) (for Dr. Elder, of Nottingham) Multiple Osteo-Chondroma (living specimens).

22. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Midlessex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, 4 p.m. Lectures and Demonstrations: Dr. Fowler.
HUNTERIAN SOCIETY (London Institution), 8 p.m. Dr. Hughlings-Jackson (President), Introductory Address. Dr. Stephen Mackenzie, "On some Cases of Acute Polio-Myelitis."

23. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.
ROYAL INSTITUTION, 3 p.m. Dr. P. L. Sclater, "On the Geographical Distribution of Animals."

24. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

QUERKETT MICROSCOPICAL CLUB (University College), 8 p.m. Mr. Charters-White (President), "On the Histological Development of the Laiva of *Corythra plumicornis*."

CLINICAL SOCIETY OF LONDON, 8½ p.m. Report of Committee on I. Finlay's Case of Aortic Aneurism. Mr. R. J. Godlee, "On a Case in which a Piece of Grass swallowed by a Child made its Exit in an Intercostal Space." Dr. George Johnson, "On a Case of Sudden Perforative Pneumothorax, with Rapid and Complete Recovery." Mr. Spencer Watson, "Sequel to a Case of Eyeball Tension reported in the *Clinical Society's Transactions*, vol. xiv." Mr. George Lawson, "On a Case of Chimney Sweep's Cancer of Axilla, treated by Excision of the Growth." Ligature of Axillary Artery, and Amputation of Arm at Shoulder Joint." Dr. T. H. Green will show a Case of Subcutaneous Fibrous Nodules in Rheumatism. Mr. B. Squire will show a Case of Lupus of the Forehead treated by Erosion and Linear Scarification.

ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Professor Odlin, "Sir B. C. Brodie's Researches on Chemical Allotropy."

ORIGINAL LECTURES.

CLINICAL LECTURES

ON DISEASES OF THE ABDOMEN.

By FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P.,
Professor of Materia Medica and Therapeutics at University College,
Physician to University Hospital, and Professor of
Clinical Medicine, etc.

LECTURE IX.

ON THE PHYSICAL EXAMINATION OF THE ABDOMEN—*Continued.*

WE were occupied in our last lecture with the ordinary physical examination of the abdomen, and I think it will be worth while, in relation to this subject, to endeavour to lay down clearly and explicitly the points to which your attention has to be directed in practising this examination. I do not mean merely that you should know what each mode of investigation teaches, but that you should have a concise, comprehensive, and definite arrangement in your minds of the particulars to which you have to attend, when carrying out the several modes. In giving you an outline of these particulars, I do not wish to bind you to this absolutely, but simply to indicate a course of procedure for your guidance which will be sufficient for the large majority of cases.

1. In all cases it is well at the outset to attend to the *abdominal walls*. This may not only enable you to recognise important abnormal conditions of the walls themselves, but also helps in determining certain conditions within the abdominal cavity. Inspection and palpation are the methods ordinarily required, but percussion and auscultation are occasionally of service. In connexion with palpation, it is important to notice that pressure with the fingers gives valuable information as to certain morbid states of the abdominal walls; for instance, when there is fluid or gas in the subcutaneous tissues. The structures which you have individually to notice in these walls are the skin itself (not forgetting to look for the so-called "white or silvery lines"); the umbilicus; the superficial veins; the subcutaneous cellular tissue; and the muscles and aponeuroses. In relation to the muscles, it is in some cases of considerable importance to recognise any involuntary contraction or rigidity which may be excited by the examination, especially if this be local, and still more if it correspond to the seat of local pain or tenderness. The value of watching patients during physical examination, so as to endeavour to determine the reality, degree, and seat of any subjective sensations of which they complain, has been referred to in a former lecture. There may be actual morbid conditions in the walls of the abdomen, which can be detected by examination, such as abscess or carcinoma, and these must be borne in mind. Moreover, it may be important to determine whether the superficial structures are adherent or not to the parts contained within the abdominal cavity.

2. The next point is to observe the *size and shape* of the abdomen, both general and local. It must not be forgotten that there are considerable differences in the size of the abdomen in different individuals, within the range of health. Its deviations from the normal, in respect to dimensions and form, are determined by inspection, palpation, and mensuration if accuracy is needed. Those of practical importance are general enlargement; general retraction; and local enlargement, either alone, or combined with either of the former. In a large number of cases we have to deal with one or other of these abnormal conditions, and our immediate object in examination is to determine its cause or causes.

3. The *abdominal respiratory movements* may now be attended to, and they give valuable information in certain instances. In the first place it should be noticed whether there is anything strikingly abnormal as the patient breathes quietly and ordinarily; then it may be desirable to observe the characters of deep or extraordinary respiration. Of course, before this procedure can be of any use to you, you must know and remember the characters of abdominal breathing in health, as regards different individuals, and in ordinary and extraordinary respiration. These movements

are studied by inspection and palpation, so far as we are at present concerned with them; or, if strict accuracy is required, measurements may be practised. The objects for which we thus attend to them may be thus generally indicated:—(a) To note whether there is anything unusual in the movements themselves; and this, you will remember, may also give valuable information in cases of thoracic disease, as well as in abdominal cases. (b) To feel for any abnormal sensations in any part of the abdomen, brought out by the act of breathing, such as friction-fremitus. (c) To observe the effects of deep respiration upon certain morbid conditions within the abdominal cavity, such as an enlarged organ or tumour, especially as regards their position. This may afford useful help in the diagnosis of conditions of this kind.

4. We have now finished with the points in which inspection can usually assist us, and in the next place special attention should be directed to the objects for which *palpation or manipulation* is ordinarily employed by itself; and you should clearly understand what particular sensations are thus elicited, and be able definitely to direct your examination in any individual case to the purpose or purposes which you have in view. You may have only to deal with the sensations which the abdomen presents generally or as a whole; or to confine your attention to particular regions, or circumscribed and even very limited localities. Moreover, these sensations revealed on palpation are often far from uniform over the entire abdomen, and so you may have to study them in the same case both generally and locally. In order to give you some guidance in practising manipulation for the purpose now under consideration, I think it will be well to indicate concisely the kinds of sensation which you have to feel for, these, of course, varying in different cases.

a. In the first place, attention may be paid to the question of *mobility or fixity*. This is, in exceptional instances, applicable to the abdomen as a whole, for there are conditions occasionally met with in which the walls and contents seem all agglutinated together, giving a curious feeling that the abdomen can only be moved about *en masse*. The adhesion of the superficial structures to underlying parts may also again be alluded to here. Much more important and frequent, however, is the necessity of noting this point locally, in connexion with some limited internal morbid condition. For instance, some organs, such as the spleen, are, as a rule, freely movable when enlarged; the kidney, on the other hand, tends to be fixed when similarly altered, while there is a peculiar displacement of this organ which is specially named "movable kidney," on account of its free mobility. I commend this question of fixity or mobility of local morbid conditions to your careful consideration. Palpation is also employed to realise the movements of organs, etc., produced by the act of breathing.

b. Another important use of manipulation is to *define* various local physical conditions within the abdomen. That is, by this mode of examination you can often determine the situation and extent or dimensions of any such condition—in some instances with great precision, in others with approximate accuracy, which is sufficient for practical purposes. At the same time, you may make out its outline, and thus get information as to its shape, and as to the directions and general characters of its surfaces and margins—points which are not uncommonly of essential value in diagnosis.

c. In many cases it is requisite to make out specially, and as precisely as possible, the characters of surfaces or margins—as regards *smoothness and regularity*, or different forms of *inequality and irregularity*. This point may have to be noted with regard to the surface of the abdomen as a whole, important information being thus sometimes gained. But it is of far greater value in relation to organs and localised morbid conditions, assisting us not only in fixing upon the seat of mischief and recognising the organ that is diseased, or showing that the condition is not connected with any organ, but also more particularly indicating the nature of the disease. This is well exemplified in the case of the liver, in the diagnosis of the different forms of enlargement of which organ the point now under consideration is of great significance.

d. Another very important class of sensations to be recognised by palpation are those of *consistence*, and degree of *resistance*. They have also to be attended to both generally and locally. As regards the abdomen as a whole, the chief deviations from the normal met with are deficiency in resistance on the part of the abdominal walls, culminating in

a feeling of complete flabbiness and tonelessness; undue tension from accumulation of gas in the intestines, which is observed in various degrees, until it ends in the peculiar drum-like feel of extreme tympanites; the sensation yielded by a fat abdomen; that of combined tension and indefinite fluctuation observed in cases of extensive ascites, and other more rare instances of great accumulation of fluid within the abdomen; and that of more or less general firmness or solidity, presented when there is some diffused consolidation, or great enlargement of certain organs within the abdominal cavity. I must again draw attention here to the fact that not uncommonly the abdominal walls become involuntarily tense when palpation is practised, either generally or locally; and you must guard against being misled by the sensations thus produced. You will also remember the "pitting" sensation indicative of œdema of the abdominal walls; and the peculiar crepitant sensation characteristic of subcutaneous collection of gaseous material.

The local tactile feelings of the class now under consideration are very important. Occasionally the sensation is one of limited muscular rigidity, or of tension from accumulation of gas in the stomach or in some part of the intestines. As a rule, however, it is either one of more or less firmness and solidity or resistance; or of distinct or indistinct fluctuation, characteristic of a fluid collection. The degree of firmness must be carefully noticed, as this is not uncommonly very significant in diagnosis. Some conditions, such as certain accumulations of feces, although solid, are more or less yielding to pressure; others are extremely dense and resistant, as is usually the case in malignant disease. You must remember that it may be necessary to press deeply into the abdomen, in order to reach certain conditions which you thus wish to feel. Moreover, you must be prepared for meeting with many cases in which the sensations differ in different parts of the abdomen, and should endeavour to make out what they severally signify. An important point also observed in some cases is this—that by superficial palpation you only feel the normal sensation or that of fluid; but on making deep pressure, especially suddenly, the fingers come into contact with something solid. Do not forget that when certain organs are displaced, so as to come more easily within reach of examination by palpation through the abdominal walls, they will present a firm feel; and this is one reason why I advised you to make yourselves acquainted with the normal feel of these organs. The altered sensations produced by their diseases are also of great help in their differential diagnosis.

e. The last group of sensations recognised by palpation, to which I would call your attention, are those of *movements* in connexion with the abdomen. These may arise spontaneously; or something may be moved by the act of manipulation. The chief of these movements are those of spasmodic contraction of the abdominal muscles; spasm of the stomach or intestines, or powerful peristaltic action; movements of gas in the alimentary canal, or gurgling, either large or small; arterial pulsation; and, very rarely, the peculiar sensation due to the movements upon each other of an accumulation of gall-stones in the gall-bladder. Some of these movements can sometimes actually be seen on inspection. Pulsation will presently be noticed separately.

5. We now pass on to the consideration of the physical signs brought out by *percussion*, which demand your special attention in every case. They belong to two main groups, namely, (a) *Sounds*; and (b) *Tactile sensations*. I wish to impress upon you the necessity of recognising both these classes of signs, and not to think that you have merely to deal with sounds when practising percussion—a mistake which is very commonly made. Each group needs to be briefly commented upon.

a. *Sounds*.—If percussion is properly performed, it usually elicits sounds of definite characters in different parts of the abdomen, which can be heard by bystanders; and this method readily reveals any deviation from the normal that may exist as regards these sounds. You must be prepared, however, for difficulties arising from accumulation of fat in the walls, and certain other conditions which mask those which are beneath. The principal variations from the ordinary percussion-sounds presented by the abdomen, with which you are likely to meet, are as follows:—(i.) A general tympanitic sound, varying in degree until it becomes extreme, and encroaches upon or obliterates the dulness normally due to the solid organs. This is due to accumulation

of gas in the alimentary canal, or rarely in the peritoneum. (ii.) A local unduly tympanitic sound, varying in its exact quality and pitch, according to its seat. Thus the stomach has a sound peculiar to itself when distended; and so has the colon; while there may be an altered sound due to local distension of a section of this division of the intestines. (iii.) A muffled sound in certain regions, not actually dull, but as if the ordinary intestinal resonance were obscured. This is especially noticed in the iliac and anterior lumbar regions, and is suggestive of more or less accumulation of fecal matters in the bowel. (iv.) Abnormal dulness—absolute, but varying much in its extent and distribution. This is very common, depending upon various conditions of the solid organs; the presence of new growths; or abnormal accumulations of fluid, either freely movable in the peritoneal cavity, or confined within some limited space. Taking a comprehensive survey of cases, it may be stated in general terms that in abdominal diseases the dulness will be found to be either universal over the whole abdomen, which is rare; symmetrical in both flanks and in the hypochondrium, the upper and anterior part of the abdomen being resonant; extensive over the front, though not usually symmetrical, the flanks being resonant; or localised in one or more regions of variable extent. It must be remembered that in the same case different abnormal percussion-sounds are often met with in different parts of the abdomen—such as dulness in one part, and tympanitic sound in another.

b. *Tactile sensations*.—As a rule, far too little attention is paid to what the fingers of the operator appreciate when percussion is practised, and not uncommonly this is ignored altogether. The sensations thus elicited are of particular importance in connexion with the abdomen, and ought always to be definitely sought for. They are partly similar to those felt on palpation, and percussion gives much help in recognising the tactile sensations significant of accumulation of gas or fluid, or of solid material of different degrees of density. There are, moreover, special signs brought out by this method of examination, alone or aided by palpation—namely, so-called *hydatid-fremitus*; and the variety of *fluctuation* elicited by tapping or flapping one part of the abdomen, and feeling with the fingers of the other hand at some opposite point, to which a wave-like or undulatory feeling is communicated when fluid is present under ordinary conditions. These sensations are sufficiently discussed in books, and I need not further enlarge upon them, except to notice, as regards fluctuation, that it may be of value as a local sign, as well as one of a general collection of fluid in the peritoneum; but, on the other hand, it is liable to be obscured by various conditions, even when fluid is present in the abdomen.

6. There is one physical sign which may be met with in the abdomen, and which, although it has been already mentioned under palpation, deserves to be specially noticed, namely, *pulsation*. Such a sign ought always to receive your careful and particular attention. It is mainly studied by palpation, but sometimes it is evident to inspection, and the use of the stethoscope may certainly give instructive information regarding it. The chief points to be determined with respect to pulsation are its situation, extent, and characters. It may depend upon the heart, when it is seated in the epigastrium; the aorta, which is most common; or the iliacs, or even some of the branches of the aorta.

7. The *sounds* which may be heard in connexion with the abdomen may next be briefly indicated. Sometimes these are audible to anyone standing near the patient; but, as a rule, they are recognised by skilled auscultation, with the aid of the stethoscope. Without entering into details, the nature of these sounds may be thus summarised:—

a. *Friction-sounds*, produced during the act of breathing, and due to inflammatory or other conditions of the peritoneal surfaces likely to originate them; or to roughness of the surface of an organ, as in cirrhosis of the liver.

b. *Gurgling* and other sounds, or *borborygmi*, in the stomach or intestines. I have recently met with a remarkable case of a female, in whose stomach churning sounds were being constantly produced, so loud as to be heard at a considerable distance off, and even in an adjoining room.

c. *Unusually conducted cardiac sounds*, these being sometimes heard extensively over the abdomen, and even modified in quality.

d. *Murmurs*.—These are (i.) the foetal and other murmurs

heard in connexion with the gravid uterus; (ii.) those due to pressure on arteries by tumours, etc.; (iii.) aneurismal murmurs.

e. Curious rattling sounds, heard in rare instances of accumulation of gall-stones in the gall-bladder.

8. Now and then we gain some useful information by combining methods of examination. Thus we may employ percussion along with auscultation, the latter enabling us to recognise certain sounds produced by the former. Moreover, *succussion* of the patient is occasionally practised, and then we make use of palpation or auscultation to determine the sensations or sounds thus brought out.

9. Lastly, I would impress upon you, as a separate point, the great help, even in ordinary examination of the abdomen, which may be derived in many instances from noticing the effects of pressure with the hands or fingers; and still more of changing the posture of the patient in various ways. I have already given some illustrations of the use of pressure; and, further, by its means we can sometimes displace, or actually remove, conditions causing abnormal physical signs, such as a collection of fæces; while it is only thus that we can reach deep structures. Pressure may also bring out gurgling sensations and sounds in connexion with the alimentary canal. As regards change of posture, that usually required is to make the patient lie on each side; but sometimes it is useful to examine in the erect posture; or while the body is bent forwards, the patient resting on his hands and knees. The signs thus obtained are:—*a.* Visible movements, as of fluid or gas. *b.* Changes of shape in the abdomen. *c.* Change of position of solid growths or organs. *d.* Alteration in certain particular physical signs, namely, percussion-sounds, fluctuation, pulsation, or murmurs. These points will be hereafter more fully illustrated, and in the meantime it will suffice to mention ascites or dropsy of the peritoneum as a condition with regard to which change of posture gives invaluable information. Of course it will be understood that the absence of any change of signs with change of posture is also an important point in not a few instances.

CLINICAL LECTURE

ON

AREOLAR HYPERPLASIA AND FISSURE OF THE CERVIX UTERI.

Delivered at the Hospital for Women, on Thursday, Jan. 12.

By HEYWOOD SMITH, M.A., M.D.,

Physician to the Hospital and to the British Lying-in Hospital.

GENTLEMEN,—I thought it might not prove uninteresting, in view of the attention that is at the present time being given to Emmet's operation, and especially as we are shortly to have the subject brought before the Obstetrical Society, if I drew your attention to some points of difference between cases of induration of the cervix uteri, the result of chronic cervicitis, and cases of hyperplasia of the cervix associated with fissure, in order that you may the more readily recognise the salient points in each series of cases, and so have some guide as to the proper treatment in each instance.

We live in an age of "runs." Certain fashions obtain at certain times, both in therapeutics and pathology. In the latter, some theory has sway for a time, to be followed, it may be, by some other theory or fiction wholly at variance with what obtained before. And in therapeutics we constantly see some new medicine introduced; when everyone all at once prescribes it for nearly every known malady. Chemists lay in a large stock of it, only to find after a short time that it is laid aside, until perhaps they are enabled, years afterwards, to persuade some one to bring it forward again as a new remedy. So in the subject before us. All cases of hypertrophy with induration of the lips of the uterus were at one time classed as cases of areolar hyperplasia depending on chronic cervicitis; whereas now many of these cases are stated to be due to fissure of the cervix.

In the non-parturient woman, induration of the cervix with hypertrophy rarely exists; but in women who have borne children the process of involution is not unfrequently

arrested, either by the woman getting about too soon after her confinement, or by cold, or by non-lactation, and the resulting sub-involution is the main factor in the production of the indurated condition referred to. Health to a certain extent stands in relation to wealth. The woman who is able to afford to lie up and keep quiet avoids thereby many of the evils that attack her poorer sister, who has too soon to assume the perpendicular position and toil at her work, thereby producing congestion and laying the seeds of further mischief. Again, cold and insufficient food tend to sub-involution with its concomitant misery; and, thirdly, when a woman omits to suckle her child, the natural outlet for the *débris* of the disintegrating uterus is to a certain extent blocked, and the connective-tissue element of the cervix becomes not only arrested in its degeneration, but from the stimulus of chronic inflammation becomes proliferated, and forms a morbid product that has its peculiar symptoms and signs.

The oscillations of fashion are also seen in the various doctrines that are advocated from time to time. Just now the medicine-men are beginning to think that surgical methods have had sufficient sway, and that soon it must come about that many cases will yield to internal medicines; but we who practise gynaecology know full well that many cases will yield only to definite local treatment, such treatment involving the performance of operations of more or less gravity.

[The lecturer here drew on the black board several sketches of the cervix uteri, both in section and plan, to illustrate the various conditions of—1. Simple hyperplasia of one lip; 2. General hypertrophy with induration of both lips, leading to their eversion; and 3. Everted labia with induration and granular disease, associated with fissure, more or less extensive, of the cervix.]

1. In cases where retroflexion, for instance, exists, there is a tendency for the posterior lip to become the seat of chronic congestion, then of chronic inflammation, followed by induration on its proximal surface, and granular disease of the surface overlying such induration. In such a case the os uteri presents a crescentic form, the thin anterior lip apparently embracing the nodular posterior lip, which has the appearance almost of a fibroid nodule. The affected lip becomes generally covered with a velvety granular condition of surface, which is constantly and most erroneously called "ulceration."

2. When subinvolution affects the whole cervix, both lips increase in thickness and hardness on their proximal surfaces, and these pressing on one another, force the lips to become everted and hard. The external os is widely patent as a long transverse line, and the whole cervix is in the condition of extensive areolar hyperplasia. This condition of things produces a characteristic pain in the pelvis and through one or both hips; there is menorrhagia, with a muco-purulent discharge, and often metrorrhagia; and in some cases practitioners have not unfrequently mistaken the condition for cancer of the cervix. I think, however, that there is one diagnostic point that is valuable to differentiate the two states. In areolar hyperplasia the hardness appears to the touch to be submucous, that is, the mucous membrane is felt to be, to a certain extent, free and separable as a healthy structure superimposed on the indurated tissue beneath; whereas, in cancer of the cervix, the mucous membrane cannot be recognised as separable from the general hardness, but gives to the finger the sensation of hard, wet india-rubber.

3. We come, thirdly, to the consideration of those cases where induration and eversion of the lips of the cervix are due, as Emmet maintains, primarily to fissure either on one or both sides. This condition of fissure is stated to be the starting point of the malady, and is the main factor in the production of the chronic inflammation, and so of the hyperplastic state.

Emmet scarcely recognises any other cause of areolar hyperplasia. To it he attributes all the troubles that others have put down to subinvolution and chronic cervicitis alone; and, following this line of reasoning, he insists that all cases of fissure of the cervix during labour should be recognised at the time, and the fissure closed at once with sutures, or, if not then recognised, the operation that he has put forward should be performed, as being the only method of treatment that is at all likely to be followed by a permanent cure.

What I desire to point out to you to-day is the necessity

of recognising the possibility of areolar hyperplasia following chronic cervicitis existing without any fissure, so that you may be in a position, without any bias, of coming to a correct diagnosis in these cases, without which we cannot hope to carry out successfully any plan of treatment.

In the class of cases first referred to, where one lip only is involved, both the touch and the speculum render the diagnosis easy; for even in cases of unilateral fissure the appearance is markedly different from those cases in which no fissure exists.

In the second class, where both lips are involved, and where the hypertrophy has proceeded to such an extent that both lips are widely everted, the diagnosis is not at first so easy, as the lips, being elongated and turned outwards, the space between them, giving a deep furrow, is not dissimilar to a fissure. But in these latter cases, if a careful examination is made, the touch reveals a distinct fissure having a marked cicatrix at its angle, and the speculum shows a distinct tear extending more or less towards the vaginal cul-de-sac.

I will now say a few words as to the treatment in these several cases. Where simple areolar hyperplasia exists, the indication is to destroy the indurated mass, and so to allow the lips of the uterus to resume their natural position.

This may be done either with potassa caustica, the actual cautery at a white heat (as you have just seen me do in the case to-day), or by excising the whole nodule with a narrow knife.

The treatment with potassa caustica, as advocated by Dr. Henry Bennet and my father, and carried out so successfully for so many years in this hospital, has many advantages. The caustic is very powerful, and one is enabled to excavate a considerable portion, which in time sloughs out; and the process can be repeated until all the indurated tissue is removed. The case should be carefully watched during the healing process, and the sound passed a short way into the cervical canal in order to guard against occlusion taking place.

In cases where the induration is not very deep or extensive, the actual cautery is most beneficial. At a white heat the part is rapidly destroyed, and any remaining induration may be subsequently treated in the same way. The cautery is a safer method of procedure than that with the potassa, as, I think, there is less liability to pelvic cellulitis; for when potassa is being used, we must guard our patients very carefully against cold, as the least chill seems to favour its production.

Where, however, fissure undoubtedly exists, then the operation devised and recommended by Emmet holds out the best prospect of cure. It is an operation requiring care, time, and patience. The whole of the indurated cicatrix has to be cut out; the lateral aspects of the lips of the cervix must be not only vivified, but all the indurated tissue removed; the introduction of the sutures requires care to get the parts into perfect apposition; and the introduction of the needles into the thickened tissue of the cervix is by no means easy. We can, however, bear our testimony to the great value of the operation, as we have now performed it many times here, and the results have been very favourable, and have quite borne out all that Emmet claims for it.

I hope in these few remarks that I have rendered clear to you (1) the importance of carefully distinguishing the kind of case you have to deal with; (2) the importance of recognising these several maladies in order to their successful treatment; and (3) the various methods of treatment that should be pursued in each several case.

NERVE-STRETCHING IN TABES DORSALIS.—The great discussion on this subject, introduced to the Berlin Medical Society by Prof. Langenbeck, which was continued during three sittings, has just closed. The most able of those most conversant with the subject took part in it, as Drs. Westphal, Bardeleben, Bernhardt, Israel, Remak, etc.; and the general tenor of their discourses, as summed up by Prof. Westphal, declared that no case of tabes had ever been actually cured by this means, and that it is doubtful whether any marked symptoms have been relieved for a certain time. At all events, nerve-stretching cannot be regarded as a curative procedure for tabes.—*Berlin. Klin. Woch.*, February 6.

ORIGINAL COMMUNICATIONS.

THE ATTRIBUTES, PROFESSIONAL AND SOCIAL, OF THE SO-CALLED "FAMILY DOCTOR."

*Being the Annual Oration, delivered Wednesday, Feb. 8, 1882,
Before the Hunterian Society.*

By ROBERT FOWLER, M.D.

(Continued from page 172.)

ABOUT 1812, public attention was drawn to the fact that whilst the physician and surgeon were both subjected to a certain course of professional study to be tested by examination, the education of the medical attendant upon the great mass of the population was entirely unprovided for; and no proof whatever was required as to his competency to discharge his very important duties.

To effect this desideratum, an agitation—originated by the father of a recently-past President of the College of Physicians—was joined with great spirit by other well-known medical practitioners of the day.

Vain efforts were made to induce the corporate medical bodies to co-operate in raising the general practitioner to legal status. The Society of Apothecaries, composed though it was of three-fourths of the very class of practitioners whose improvement it was sought to effect, actually declined, as a body, to concur in the intended application to Parliament. The dogged perseverance, however, of such men as Dr. George Mann Burrows, Dr. Anthony Todd Thomson, Dr. Kerrison, Dr. Good, and Mr. Upton, ultimately eventuated in the passing of the Act of 1815, and the Society of Apothecaries was "appointed to carry this Act into execution."

By the accident of association was thus perpetuated the application of the term "apothecary" to the licensees, who, being, in the words of the Act, (a) "examined as to their skill and ability in the science and practice of medicine," clearly represent that great class of general practitioners, or surgeon-apothecaries, required before 1815, as now, to practise every member and part of the science of physic.

It is no very great stretch of the imagination to assert, as I do, that the very nomenclature of the several grades of our profession has been affected by the short-sighted exclusiveness of the College of Physicians.

Fortified with the legal definition of the word "physick" given them by the 32 Henry VIII., the College of Physicians in granting a licence to practise an art and science which comprised and comprehended amongst their "members and parts the knowledge of surgery" as well as the knowledge of medicine (in its most restricted sense), morally, legally, and etymologically created their licensees physicians or practisers of physic.

The single word, "physician," should and would have correctly characterised the great class of general practitioners or surgeon-apothecaries.

He who aspired to the dignity of a consultant would doubtless have preceded his connexion with the College by the possession of a University degree.

The term "doctor," i.e., learned, would naturally have been the designation of such a man, even when additionally invested by the College with the grade and title of "Fellow."

The distinctive word "chirurgion" or "surgeon" would have effectually embraced those—comparatively few—who confined themselves exclusively to the practice of that member or part of our science dependent more or less upon manipulative and operative interference and skill.

This historical sketch brings, I hope graphically, although I fear imperfectly, before you the professional status which the laws of the country have given the so-called surgeon-apothecaries, the general practitioners, or as I prefer now to style them, the practisers of physic.

I have shown you what the "practiser of physic" ought, in my opinion, to have been, were it not for the exclusive pedantry of a self-immolating, short-sighted, although powerful, Corporation.

I proceed to ask, Is this status professionally perfect?

The professional status of every practiser of physic necessarily comprises the consideration of two epochs—the period of preparation, and the period of qualification.

Recent Orators of this Society, notably Mr. Rivington and Dr. Pye-Smith, have so admirably descanted on the subject of medical education in general, that it would ill become me to weary you with views in a great measure concordant with the opinions of teachers such as they. An experience of more than a quarter of a century, with all the practical details of the life of a busy practiser of physic, obviously, however, induces a disinclination in my mind to accept, even from so renowned a metropolitan teacher as Dr. Pye-Smith, the dogma that time spent in medical pupilage prior to the medical school is worse than wasted. To assert, as some of the teachers do, that young men who have served an apprenticeship have turned out "indifferent" hospital students, is no argument adverse to the capabilities of the system.

What, may be asked, is the relative proportion of "indifference" displayed by students unpreparedly entering the hospital direct from grammar-school and college, and of those who have previously educated their eye and their hand under the supervision of a capable and discreet practiser of physic?

The advantages derivable from what I shall call pre-hospital pupilage are entirely dependent on two important factors—the receptivity of the student's brain, and the conscientiousness and capacity for imparting knowledge on the part of the practitioner. It is the non-observance of the mutuality of the bond which has, I fear, done more than anything else to prejudice modern medicine against this bygone mode of entering her precincts.

I appeal with much confidence to the judgment of that great mass of the practisers of physic who may have passed through a well-spent pre-hospital pupilage, for their verdict on the benefits of the system.

In almost every manipulative vocation of the present day the want of practical experience is being felt.

Technical education to adults, to be supplied by the funds of the great guilds of this city, is now forcibly enlisted to act as a supplemental panacea for defects resulting from the non-apprenticeship of our youth.

Can we positively prove that the present method of medical education has conferred upon suffering humanity practitioners so superior that the old mode must of necessity be stigmatised as not only useless, but as actually mischievous?

In his address at the International Congress last year, Dr. Billings, Surgeon to the United States Army, spoke some very characteristically smart words, which are quite *à propos* to my purpose:—

"The languid scientific swell, who thinks it bad style to be practical, who takes no interest in anything but pure science, and makes it a point to refrain from any investigations which might lead to useful results, lest he might be confounded with mere practical men, exists and has his admirers. We have such in medicine, and their number will increase. . . . While it is true that to the graduate of thirty years ago much of the physiological literature of the present day is an unknown tongue, it is also true that the physiologist of the present, who confines himself to laboratory work, will find himself distanced by the man who keeps his clinical and pathological studies and his experimental work well abreast."

I am firmly of opinion that there are very many so-called details of practice which are best, and I would say, can only be, acquired during a pre-hospital pupilage.

I go further. Assuming, of course, the capacity, the capability, and the opportunities of the practitioner, I hold that a knowledge of certain of the preliminary studies could thus be most advantageously acquired prior to entering the hospital, and when there is really more time at the disposal of the student to master these groundworks of more strictly professional subjects.

The General Medical Council appears at length, although tardily, to have recognised this latter possibility.

At its meeting on July 14, 1880, the Council passed an important resolution, insisting that on and after January 1, 1882, botany and elementary chemistry be included amongst the optional subjects, in one of which the student must undergo a preliminary examination.

In advocating the advantages derivable from a pre-hospital pupilage I am not bound to an assertion of the absolute necessity of the old-fashioned lengthy servitude of

the past, in which time and opportunities were often both wasted.

It is but justice to mention that the Society of Apothecaries, who, by the express requirement of their Act of 1815, had to insist on a five years' servitude, some thirty years ago, recognising this evil of duration, officially and considerably modified the spirit of this insistent.

Despite also the fact that from 1861 to 1865 pre-hospital pupilage was ignored by the General Medical Council as one of the modes of commencing professional studies, that great examining body the Royal College of Surgeons of England had not only the wisdom to perceive that this was a retrograde and unwise step, but the Corporation had also the courage of its own more correct views on the subject.

It politely refused compliance and conformity, and always continued to consider pupilage as one mode of the commencement of professional education.

In January, 1870, the Court of Examiners of this body adopted an important report, a copy of which was, I believe, at the time forwarded to every metropolitan and provincial teacher. In this report the Court "deplores the total abolition of a limited apprenticeship," and intimates that since the almost entire cessation of the system, students for the most part enter the medical schools quite unacquainted with any branch of medical knowledge or elementary science. The Examiners thus further expressed themselves:—"The prevailing defects in candidates for the diploma of member are want of accurate knowledge of objects and facts, and want of skill in using the appliances of surgery."

Based upon this very valuable report, the Council of the Royal College at once laid down some important modifications of the required curriculum of study.

Pre-hospital pupilage was still recognised.

The inference deducible from these facts in favour of a limited pre-hospital pupilage, supported as they are by the conviction of a large proportion of the general practitioners of the country, may be fairly weighed against the recorded opinions of even that large proportion of the past and present teachers in our provincial and metropolitan medical schools who opine that a return to the system of apprenticeship, even in a modified form, is not desirable.

The outcome of these ideas which I have thus endeavoured to portray to you is, that the preparation for the future life of every practiser of physic should be of a thoroughly practical and utilitarian character.

In 1870, Professor Huxley, speaking at University College, London, on the occasion of the distribution of prizes, concluded his remarks on medical education in these words:—"I entertain a very strong conviction that anyone who adds to medical education one iota or tittle beyond what is absolutely necessary is guilty of a very grave offence."

The tendency of modern medical education, I do not hesitate to say, appears to me, as I believe it does to many others interested in the practical performance of their profession, to conduce rather to the formation of purely scientific physicians than to guaranteeing to the public skilful and clinical practitioners.

Amongst some of our modern teachers, the practice and great aim of our noble calling would appear almost to partake of the ignoble and derogatory. The extent and progress of science are seemingly deemed paramount to the interests of humanity.

Referring to one of England's great anatomists, the "pupil," "coadjutor," and "attached personal friend" of the "brilliant Thomas Willis," the President of the Physiological Section in the International Medical Congress of last year, remarked:—"Had Richard Lower remained in the academic repose of Oxford, devoted, without distractions, to his researches, it is difficult to say whither he might not have reached. Unhappily, Willis persuaded him to move with him to London, where, especially after his master's death, his talents soon gained him an extensive practice. He became the most noted physician in London and Westminster. 'No man's name was more cried up at Court than his,' and the powers of mind which might have made him a second Harvey, were used for the immediate benefit of his patients and himself."

In like vein it is deplored that the nineteenth century would not have been ashamed of English physiology, had but certain of our renowned practitioners given up the practice of their art.

Paraphrasing Goldsmith's famous verse,^(c) they should to science give up "what was meant for mankind."

In the name of the great body of the practisers of physie, I demur, with all due respect, to the implications of such sentiments.

The claim for science as the *helpmate* of the physician will not in these days be questioned. To arrogate a predominance of science *per se* over the practical application of knowledge to the urgent needs of our suffering fellow-men is not only to alienate public feeling, which already most ignorantly and most insanely questions the utility of our investigations and discoveries, but it stimulates superficial theory to uselessly augment the already overloaded energies of would-be practitioners to the acquisition of knowledge "not absolutely needed in their future career."

"The aim of every student of medicine is," says Professor Owen, "to raise the healing art to the status of a science." Considering, therefore, the attractiveness with which the scientific inquiries of the day must tend to alienate more and more from immediate clinical work, a grave responsibility now, more than ever, particularly rests upon the shoulders of those corporate bodies who are empowered to guarantee to the public the fitness in every respect of their trusted medical advisers.

Very recently indeed the General Medical Council has returned to a recognition of the importance that candidates for the final professional examination should evince a practical acquaintance with their future duties to humanity.

The examining bodies have risen to a recognition of this necessity. Anyone comparing, for example, the regulations of the Royal College of Surgeons of England respecting the education and examination of candidates for the diploma of Member in 1869, with those issued in 1871, and still in force at the present day, will, especially after a visit to the well-arranged theatre in Lincoln's-inn-fields on examination days, at once recognise the fact that the diploma of the College is now evidence of real fitness for the *practice* of surgery.

I do not, however, hesitate to state that many an old pre-hospital pupil would long before 1871 have found himself quite at home when tested with these "manipulations," the foundation on which the practice of (certainly operative) surgery depends for its safe superstructure. One cannot, indeed, but feel a sort of malicious delight in contemptuously remarking that, had even a "limited apprenticeship" been always imperative, the necessity would never have arisen for a member of the Council of the College of Surgeons to insert in (and continue even in the later editions of) his well-known "Manual of Minor Surgery" three whole paragraphs on "washing catheters."^(d)

It may, I think, be fairly assumed that the labours of the Medical Acts Commission, appointed last year, will eventuate in the adoption, in some form or other, of what has been called the one-portal system of examination, either by means of a resuscitated conjoint scheme, or of a State board independent of the corporations. Such a State board (either as one or tripartite for the United Kingdom) finally examining in medicine, obstetrics, and surgery, and appointed, say, partly by the Privy Council and partly by a more truly representative General Medical Council, would, we are told, obtain the confidence of the public in the competency of what is called the general practitioner or the family doctor.

What the public require is an authoritative guarantee that the practitioner be competent and qualified to attend to their need, when they are prostrated by accident, childbirth, or disease. The public do not care one jot whether So-and-so is a good physiologist, or is a better botanist than, or is the best chemist of, his immediate neighbours.

It is the profession itself, through its constituted authorities, which demands that its future practitioners shall prove their competency in a knowledge of these and other (what may be called) preliminary studies.

It argued, however, badly for the prospective discernment of our English corporations when, in 1880, the conjoint scheme was allowed to collapse. An opportunity was thereby given for that State interference so galling to the boasted pride of every Englishman—his capacity for self-government.

Is it too late to retrieve the error?

In great contrast with the opinions of those eminent and

strong-minded men who gave the first move to the government of our Royal College of Physicians, their "degenerate descendants," who ruled over the "commonalty" two or three hundred years later, elected, as we have shown, to separate into constituent parts, which Celsus had declared "*ex toto separari non possint*." This exclusion of surgery, obstetrics, and pharmacy, from the totality of the "Faculty of Physick," doubtless acted for some years as a great bar to the general improvement of medical science.

Having, however, by their own by-laws assumed for their licensees what was thought the higher position of consultants, and prescribers only in one single branch of the whole domain of medicine, it would appear to all, jealous of the honour of our profession, more dignified had the College stood firm on their acknowledged lofty pedestal.

The age and circumstances had gradually acquiesced in the necessity and convenience of the tripartite division of our science and art. The public willingly recognised the diploma from Pall-mall as a guarantee that its possessor was entitled to that higher confidence which superior knowledge and skill invariably insure in the season of urgent need and difficulty.

In an evil moment it was counselled to revoke their by-law, and to resuscitate a power which undoubtedly the non-annulled charters of the Crown and unrepealed Acts of Parliament still authorised them to use.

In future every licensee was empowered to "go forth entitled, not only to attend the case, but also to supply the medicines which he should prescribe."^(e)

Three grades of licensees were established. Confusion again reigned in the nomenclature of our designation.

In 1815 the Royal College declined the proffered duty of superintending general medical education. It has been but a slow and unwilling convert to the principle of an improved and improving standard of qualification for the general practitioners.

It has, indeed, thrown itself open to this imputation—that, as the distinction of classes would be imperilled in proportion as the qualification of the family doctor became higher, so therefore it cannot be expected that any present royal college would further, or even perform the duty towards, this advancement with zeal, fidelity, and efficiency.

Why, then, this outburst of love for that great class of practitioners, against whom this particular Royal College, styling them "medicasters," had for centuries been fulminating its wrath?

Well might each practiser of physie, aghast at this sudden transition from exclusiveness and self-complacency, in wonderment exclaim—

"Perhaps it was right to dissemble your love,
But why did you kick me downstairs?"^(f)

In 1847, being examined by Mr. Warburton's Committee in reference to the Medical Registration Bill, then before the House of Commons, the President of the London College of Physicians, Dr. Paris, pleaded that they could not enforce their own powers against unprofessional conduct because they had no money.^(g)

The vague wording of the reciprocity section of the Medical Act of 1858 flashed the irresistible bait of a "golden shower" before all eager impecunious corporations.

The "jealous warden" of the brazen tower in Argos failed, we know, to resist the importunities of Jove desiring to confer the privilege of paternity on a son of Danaë. So, we may imagine, quailed the virtue of the guardian Bedell of the *Alma Mater* in Pall-mall against the importunities of those loving, and willing to pay for, affiliation and title.

"Custodem pavidum Jupiter et Venus
Rississent: fore enim tutum iter et patens
Converso in pretium Deo."^(h)

This new-born zeal in 1860 of the Royal College of Physicians of London was as ill advised as it was ill timed.

Ill timed, because for nearly fifty years the necessary work had been most efficiently and sufficiently done by a corporate body called into very existence by reason of the omissions and commissions of this Royal College itself.

Ill advised, because, on the one hand, it wounded the sus-

(c) Retaliation: character of Edmund Burke—

"And to party gave up what was meant for mankind."

(d) Heath, fifth edition, 1875, pages 74, 75.

(e) Printed report of judgment (Attorney-General on the part of the Society of Apothecaries v. the Royal College of Physicians) by Vice-Chancellor Page Wood, 1861.

(f) Comedy of *The Panel*, altered from Bickerstaff's comedy, 'Tis Well it's no Worse. J. P. Kemble.

(g) Answers to Questions 290, 291. (h) Horace, Lib. iii., Ode xvi., l. 6-8.

ceptibilities of the Royal College of Surgeons of England; and, on the other, it forced the well-doing Society of Apothecaries of London as a plaintiff into the Court of Chancery.

Though, of course, not publicly recognised, effects such as these must have tended not a little to an undercurrent of jealousy, or at least of lukewarmness, amongst the corporations antagonistic to the success of the English conjoint scheme.

The natural union of corporations, best calculated, perhaps, at the present day to effectuate an all-sufficient one-portal examination in England, would be the combination of the Royal College of Surgeons with the Society of Apothecaries.

The College of Surgeons of England has vast opportunities, which I need not here detail, of giving effect to those excellent regulations issued by its Council in 1871. It has since then insisted well and most effectually, both in its primary and in its pass tests, on the candidates giving demonstrable proof of a thoroughly practical acquaintance with the subjects of examination.

Its membership is, from past influences, thoroughly ingrained in men's minds as an absolutely necessary qualification. It would, therefore, probably be impolitic, as it would practically be impossible, to exclude this powerful corporation from taking its future and due share in guaranteeing to the public, medical attendants especially conversant with those subjects which its charters and the Acts of Parliament distinctly empower it to examine in.

According to the authority of the official Calendar, during the ten years ended July 31, 1880, the diplomas of membership granted by the Royal College of Surgeons of England averaged in number 365 per annum.

The present annual average of licences granted by the Society of Apothecaries amounts to 250.

It has been estimated that quite one-third of the whole number of medical practitioners on the published Medical Register are licentiates of this Society.

Should a combination of these two bodies for a corporate conjoint scheme be unfortunately unattainable, there is but the prejudice of a name to preclude the practicability of the Society of Apothecaries most adequately and most sufficiently supplying the necessary tests for the one-portal system, so far as this division of the kingdom, at all events, is concerned.

(To be continued.)

ON THE PRACTICAL WORKING OF DIRECT VACCINATION FROM THE CALF.(a)

By BENJAMIN BROWNING, M.D., S.Sc.C., F.C.S.

Medical Officer of Health, Rotherhithe.

It is no longer advisable to use humanised lymph for vaccination. The use of humanised lymph should be in future discarded, for these reasons:—1. It is not easy to procure on an emergency. 2. It sometimes fails to afford the desired protection. 3. It possibly may be thought to be the means of conveying constitutional infection; and so people refuse to be vaccinated.

Conversely, calf-lymph, properly cultivated, sent out, and used, (1) is available on the briefest possible notice; (2) never fails in preventing small-pox; (3) is not known to have ever produced any bad symptoms, or transmitted any disease from animal to man. Persons objecting to ordinary vaccination will therefore permit themselves or children to be vaccinated from calves. Any quantity that is likely to be required of absolutely fresh and perfect calf-lymph can be now sent anywhere from London by next post on receipt of letter or telegram.

Reliable evidence is wanting of the possibility of the transmission of any infection but the syphilitic and scrofulous taints by means of humanised vaccination.

Erysipelas may occasionally have followed the use of a dirty lancet or putrescent lymph, and various skin-affections (roseola, lichen, pemphigus, etc.) may sometimes be observed after an ill-fed child, scantily or unsuitably dieted, has been vaccinated; but these are faults of commission, and not fairly chargeable to vaccination. No enthetic or other virus

can be passed from beast to man by vaccination with pure animal lymph, for, if labouring under any unsuspected diathetic disease, they will develop no vesicles when vaccinated.

As in the consideration of humanised vaccination a red spectre of possible syphilisation discloses itself to some thinkers, so to other inquirers respecting animalised lymph sometimes appears a twin brotherhood of tuberculosis and anthrax. But the possibility of such diseases being introduced to our systems is negatived by the certainty that they take their right place in the ranks of the microbic infectious diseases, and that their specific micro-organisms can readily be seen. Let me refute some of the stock objections to animalised vaccination.

1. That in practising direct animalised vaccination, whether from animal to animal, or from animal to the human subject, there is considerable probability of failure; and that the operation itself is difficult of performance.

2. That papulo-vesicular eruptions (roseola, lichen) are specially induced by it, and that it is usually followed by phlegmonoid or erysipeloid symptoms.

3. That the local, as well as constitutional, disturbance is much more severe than after humanised vaccination.

1. Dr. Renner's percentage success is 98·3 per cent. Dr. Warlomont states the success of the Belgian physicians to be 96 per cent. My own, in upwards of 1000 vaccinations and revaccinations which I have noted, is 97·13 per cent. Dr. Renner has, since May last, vaccinated 186 calves without one failure.

2. It is allowed by all modern writers that no specific eruptions or inflammations are traceable to pure calf-lymph.

3. Neither Dr. Renner, Dr. Cory, Dr. Warlomont, nor I myself, have yet seen any of the alleged severe consequences in our practice.

After a year's practical experience I have formulated these instructions.—

1. Calves of either sex, from three weeks old to eight weeks, can be pressed into the service, but, as a rule, those of a month are best for use, as they cost less to keep, and are more remunerative when resold.

2. The vaccinating lymph, if not directly taken from the calf, should be lymph in squares or points. It should be as fresh as possible, and therefore by choice derived from an English source.

3. The calves should be kept in a well-drained and ventilated stable, in narrow boxes just wide enough to permit their lying down, but not turning their necks or bodies in the stall.

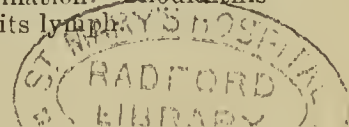
4. A strong reversible table, slightly hollowed on the top, with holes to permit the escape of ordure and urine, fitted with a post, two horns, and rings, so as to facilitate the spread-eagling of the animal, and retaining it in a fixed position when so secured by means of a broad strap round its body, is necessary.

5. The remaining appliances, few and simple, consist of a water-bath, a drying-oven (with attached centigrade thermometer), some paraffin, a few pairs of forceps like these, a vaccinating needle, one narrow and one broad double-edged scalpel, and ivory points, glass tubes and squares.

6. The calf chosen—previously found healthy, of good appetite, and normal temperature—is fastened down to the table (the lid of which is previously placed in the vertical position) by the head resting between the iron horns; the fore legs strapped together to the right-hand corner ring, and the hind legs separated, and lashed respectively to the post and left-hand corner; the body-strap tightened over it, and the lid then replaced horizontally. After washing with a weak carbolic acid or thymol lotion (one in a hundred), the hair of the belly is shaved over its lower third, and the exposed skin again washed. The calf is now ready for lymph insertion, which, with preserved lymph, is best done by scarification in fifty to eighty places; but if another animal be present as a vaccinifer, an equal number of punctures answer better. If lymph on points be used, you must moisten and dissolve it with a little tepid water and glycerine.

7. During the whole of this period of origin, maturation, and desiccation of the eruption, the animal, if all is going on well, keeps remarkably free from constitutional disturbance; it has little, if any, loss of appetite or increase of temperature, and no perceptible areolation or induration round the vesicles till after their acumination. Should this not be the case, I would decline using its lymph.

(a) *Resume* of a paper read before the Society of Medical Officers of Health, January 20, 1882.



8. The necessity taught by Warlomont, of always mixing two stocks of lymph, or at least working with lymph from two animals in each calf-lymph vaccination, is contra-indicated provided lymph be taken directly the vesicle acuminates.

9. As soon as acumination is observed in any vesicle, up to the fifth day inclusive, that vesicle should be at once opened, and utilised as follows:—The animal being again placed on the table, and its skin washed, the vesicle to be emptied is pinched up with forceps; some coloured exudation and serosity which exudes wiped off; and then the vesicle is removed with a broad, double-edged scalpel, and drained by slight pressure on to a piece of glass. The dry scab is left alone, for fear of septism; but the pool of lymph running from it is microscoped, and used, as necessary, for coating points and glasses and filling tubes, or for direct vaccination to child or calf.

The points are dipped in lymph, and then dried in the oven at a temperature of 100° C.; both they and the square glasses should just previously have been kept there a few minutes.

The glasses are each coated with lymph, put together, have their edges plunged into paraffin melted over the water bath, and remain till it has hardened. The tubes are filled with lymph, which is defibrinated by exposure to the air and gravitation, and then are closed with paraffin or hermetically sealed.

The preserved lymph is now ready for transmitting, and retains its properties longest when excluded from light, heat, and damp.

If tubes are employed, they should not be more than twenty-four hours old. The charged points (which are artificially preserved fresh by heat) and the glasses (which are protected from changes due to air-action by their warming and coat of paraffin) will sometimes keep active for six months.

The use of lymph taken after the fifth day, or of stuff which is merely serosity squeezed out by too greedy collectors from the flesh surrounding the vesicle, and possibly contains minute portions of scab, integument, and even muscular fibre, may be the cause of some disappointment, and perhaps of actual mischief.

I have now only to anticipate and answer some objections which may be made.

The proper period for taking lymph is just at acumination, and the chances of resulting mischief or failure are proportionate to the lateness of collection.

The violent action attributed to natural cow-lymph is got over by two or three removes from heifer to heifer, just as it was obviated in Jenner's hands by two or three removes from baby to baby.

With an organised system of direct animalised vaccination alone, worked by the public vaccinator of each district, pure lymph might be produced daily, sufficient for the wants of everyone, at a much cheaper rate of time, money, and trouble than is now necessary for our present compulsory vaccination, and with the effect of practically abolishing small-pox, which in London, at least, one is almost driven to despair of.

No longer would public vaccinators in the country be compelled by official order to postpone their vaccinations from April to October, and from October to April.

No longer would stale lymph, six months old, have to be used from which to start a fresh supply at each vaccination time, with the risk of failure. No longer would town practitioners have to beg for lymph from their country brethren, and too often in vain.

I would advise not to commence in very hot weather, nor with too young calves, and to carefully microscope the vesicles and lymph first obtained.

THE OBLIGATORY ATTENDANCE OF A DOCTOR.—Dr. Gutmann, who is practising in St. Petersburg, has been fined ten roubles and condemned to a month's "arrest" for having refused to visit a patient who urgently demanded his services, and who died while a doctor was being sought for. The chief point urged in his defence by Dr. Gutmann was that the person for whom his services were requested had fallen ill in consequence of having partaken of some injurious food, while his practice was confined to the treatment of the venereal disease.—*Petersburg. Med. Week.*, February 11.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

CASES OF MALIGNANT ENDOCARDITIS.

(Under the care of Dr. SIDNEY COUPLAND.)

THE three following cases are recorded rather as contributions to the clinical history of this formidable disease than as throwing light upon its obscure pathology. They all belong to the class of so-called "ulcerative" or "infectious" or "septic" endocarditis, and clinically they were distinguished by very marked septic fever. The term "malignant" has been employed above to denote simply the clinical fact of their fatal progressive course, without reference to their supposed etiology. In two (Nos. 2 and 3) there was a previous rheumatic history, and in the third a possibility of rheumatism. The former had manifest old valvular disease; but the exciting cause of the fatal illness is in each case obscure. Attention is particularly drawn to the irregular and pyæmic type of the pyrexia, which in Case 1 was so strikingly periodic as to nearly simulate intermittent fever. It is believed that the combination of endocarditis with such a form of pyrexia is enough to justify the gravest prognosis, and to stamp the heart-lesion as "malignant," on the supposition that the cardiac condition is the cause of the temperature curve. These cases are examples also of the fact that the pyrexia may not always be associated with embolism, although in all the spleen was large and soft, and in one it did present a recent infarction.

Case 1.—*Sclerosis of Aortic Valve—Vegetations on Mitral Valve—Secondary Auricular Endocarditis—Nephritis—Enlargement and Embolism of Spleen—Intermittent Periodic Pyrexia, resembling Ague.*

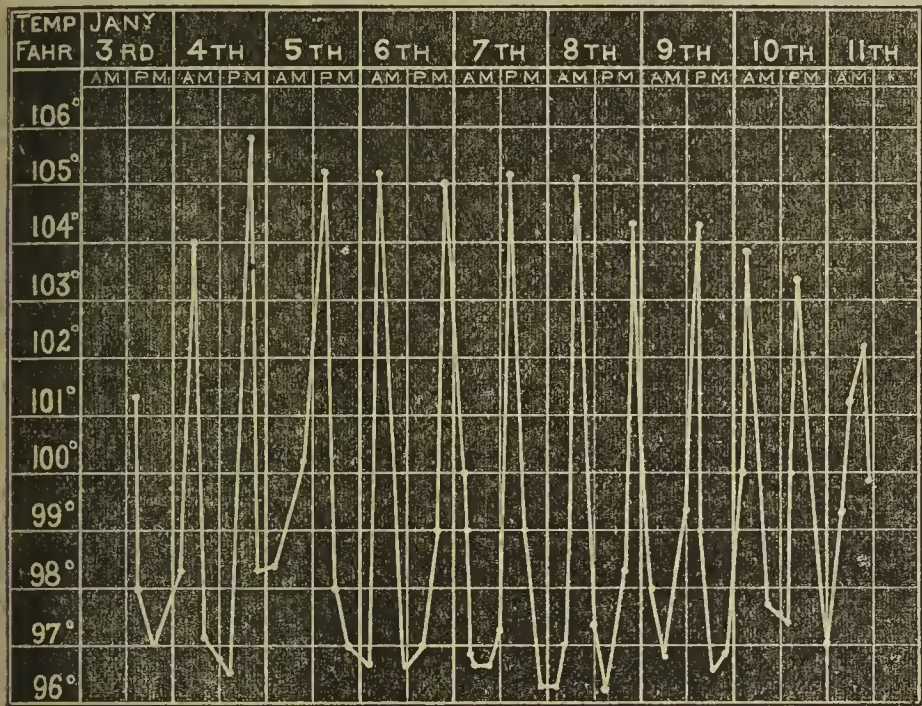
Charles L., aged forty-one, a carpenter and widower, living at Kilburn, admitted into Founder ward, January 3, 1882. He had enjoyed good health all his life, having only had gonorrhœa twenty years ago. Two months before admission he "took cold" at a funeral, and next day suffered from pain in the left leg, which was unrelieved by local applications, and for which he consulted a medical man. He seems to have lost this pain, but never felt strong again, and five weeks ago began to suffer from shivering fits, from which he has never since been free. The attacks came on at irregular intervals, sometimes every third day, sometimes every fifteen hours, and he thought he had the ague. Each attack was accompanied by vomiting, sometimes of food, sometimes of clear or bile-stained mucus, and was followed by an intolerable sense of heat, thirst, and discomfort. He could get but little sleep, lost his appetite, and had become very weak. There was no pain, but on December 31 he noticed that his legs swelled a little towards night-time.

State on Admission.—The patient, who looks very ill, is a spare, sallow man, his face marked by acne rosacea. He is much depressed, and has had an attack of shivering about five hours ago. His temperature is now 101.2°, and he says he is less uncomfortable than a few hours previously, but is still hot and very thirsty; not sweating. The tongue is dry, glazed, cracked, not coated. Physical signs of lungs natural, beyond slight impairment of resonance over the right back. Cardiac dulness normal; apex beat in fifth interspace, one inch and a half below and half an inch to the sternal side of the nipple. There is a rough systolic bruit at the apex; no thrill. The pulmonary second sound is ringing; the aortic dull. Area of hepatic dulness normal; the splenic is increased, reaching from seventh rib to eleventh rib in axilla; not extending below ribs. The abdomen is full and tympanitic.

Progress of Case.—The most remarkable feature being the pyrexia, and the account he gave of its previous course resembling so much that of ague—he was for the first twenty-four hours only put upon mist. camph.; and when the periodicity of the rigors and of the rise of temperature was demonstrated, an attempt was made, by the administration of quinine in ten-grain doses on the occurrence of rigor, and subsequently at regulated intervals, to control the fever.

But this drug failed to produce any appreciable effect, and it was soon clearly proved that the case was not one of ague. The existence of the endocardial murmur, and the great constitutional disturbance, therefore led to the diagnosis of malignant endocarditis of pyæmic type—a diagnosis further strengthened by the presence of albumen and, later on, of blood in the urine.

The accompanying chart indicates the marked fluctuations in temperature, and shows almost throughout a notable regularity in the alternation of pyrexial and apyrexial periods—the former always ushered in by one or more rigors, accompanied by vomiting and expectoration of mucoid fluid.



The following is a summary of the course of the fever :—

Date.	Hours.	Temperature.	Total duration of		
			Rig.	Pyr.	Apyr
Jan. 4	2.30 a.m.—4 a.m.	99°—102·8°	hrs. 1½	hrs. ...	hrs. ...
	“ —8 “	104° max.	1½	5½	...
	5 p.m.	99·8°	...	...	9
“ 5	5.20 p.m.—6.35 p.m.	99·4°—103·6°	1¼	...	...
	“ —10.15 “	105·8° max.	...	5¼	...
“ 6	11.30 a.m.	100·2°	...	...	13¼
	12.20 p.m.—1.40 p.m.	102·4° to 104·2°	1½	...	...
“ 7	“ —4.45 “	105·2° max.	...	5¼	...
	3.30 a.m.	98·6°	...	...	10¾
	3.15 a.m.—5 a.m.	98·6° to 104°	1¼	...	...
“ 8	“ —8 “	105·2° max.	...	4½	...
	9 p.m.	99°	...	...	13
	9 p.m.—10.15 p.m.	99°—103·6°	1¼	...	...
“ 9	“ —2.15 a.m.	105° max.	...	5¼	...
	1.15 p.m.	99·4°	...	...	11
	1 p.m.—2.30 p.m.	97·8° to 103·6°	1½	...	...
“ 10	1.15 “ —6.30 “	105·2° max.	...	5¼	...
	5.30 a.m.	100°	...	...	11
	5.15 a.m.—6.45 a.m.	97·6° to 103·6°	1½	...	...
“ 11	5.30 “ —10.45 “	105·2° max.	...	5¼	...
	9.30 p.m.	99·2°	...	...	10¾
	9.15 p.m.—10.45 p.m.	98·4° to 103°	1½	...	...
“ 12	9.30 “ —2 a.m.	104·4° max.	...	4½	...
	11.45 a.m.	99·2°	...	...	9¾
	11.45 a.m.—1.30 p.m.	99·2° to 104·4°	1¾	...	...
“ 13	“ —4 “	104·4° max.	...	4½	...
	1 a.m.	99·2°	...	...	9
	2.45 a.m.—4 a.m.	100°—103·8°	1¼	...	...
“ 14	1 “ —7 “	103·8° max.	...	6	...
	3 p.m.	100°	...	...	8
	3.55 p.m.—5.10 p.m.	100°—103·4°	1¼	...	...
“ 15	3 “ —9 “	103·4° max.	...	6	...
	5 a.m.	99·4°	...	...	8

Thus, throughout the whole course the pyrexial period averaged about five hours and a quarter. The rigors, which sometimes commenced with, and sometimes after, the initial

rise, averaged one hour and a half in duration; and the apyrexial period, during which the temperature frequently fell to extreme subnormal levels, averaged ten hours. The periodicity of this intermittent pyrexia is very curious, and suggests a link between malarial and septic poisoning. The absence of sweating was a marked feature, the “cold stage” being succeeded by a most distressing “hot stage”; but that in its turn was not followed by any marked sweating, the face only looking slightly moist.

January 9.—2 p.m.: Temperature 103·8°; pulse 132; respirations 60. He appears to be very distressed, and complains of the heat. Skin feels dry, with exception of face, which is moist and shiny. He has expectorated about five or six ounces of frothy mucoid fluid, which he says he vomits. Has felt sick all the morning. Suffers from intense thirst. Tongue not so dry as on admission, but red and raw-looking. Bowels open naturally. The area of splenic dulness now reaches from twelfth rib upwards to lower border of sixth rib in mid axilla, and forwards to within an inch of the nipple-line. It measures six inches vertically. Just above its limits in axilla some pleuritic friction is audible. The breath-sounds are harsh; and at base of left lung posteriorly there is dulness to level of ninth dorsal spine. In this region some fine râles (friction?) are audible with inspiration. Cardiac dulness begins at fourth rib; a slight thrill can now be felt accompanying the impulse which is perceptible in fourth, fifth, and sixth spaces. No pericardial friction. The systolic murmur at the apex is of low pitch and blowing character. Urine 1020, acid; albumen three-fourths; contains a little blood.

There is little to add. Patient became obviously worse—the breathing shallow and rapid, and, on auscultation, noted to be of extremely harsh, almost bronchial, character. Death took place rather suddenly on the afternoon of the 11th.

Post-mortem Examination was made by Dr. J. K. Fowler, who reports as follows:—Body well nourished; moderate post-mortem congestion; rigor mortis marked (forty hours after death). Right pleural sac contains twenty-two ounces, and the left twelve ounces of fluid; the latter rather opaque. A few old adhesions at back of right lung, and numerous gelatinous-looking bands between the left lung, diaphragm, and pericardium. The pericardium contains about one ounce and a half of fluid; white patch over posterior surface of right ventricle. The right cavities are distended with coagulum, principally of post-mortem formation; some soft fibrinous clot entangled in the tricuspid valve. The clot is prolonged for some distance into the pulmonary artery. The muscular tissue of the right ventricle is rather pale and flabby, and towards the apex considerably encroached on by sub-pericardial fat. The left auricle is distended with black clot, moulded around an irregularly shaped mass of fibrin, in which some deposit of lime-salts has taken place. This thrombus is adherent to the auricular surface of the mitral valve, and almost completely occludes the orifice; it is attached to the left edge of the valve. The left ventricle is completely filled with black coagulum, which is slightly intermixed with the columnæ carneæ, and extends through the aortic orifice. Aortic valve slightly incompetent to the water test; its mitral and right coronary cusps are fused into a single cusp, the edge of which is thickened and rounded. Towards the junction of the right and left coronary cusps there is a tooth-shaped plate, with at one spot a rough point projecting towards the ventricle. The right coronary cusp and the aortic (anterior) flap of the mitral valve contain atheromatous patches. On laying open the mitral valve the large mass of fibrin above mentioned is found to have a single attachment along the edge of the valve, just below the auricular appendix, its base measuring seven-eighths of an inch, and its whole length about an inch and a half. Several tendinous cords attached to this cusp are ulcerated, their free ends hanging loose in the ventricle; others are thickened and ulcerating. Just above the centre of the cusp the endocardium has a granular look, and has lost its glossy appearance; and the endocardium of the left auricle is somewhat scarred and ribbed. The muscular tissue of the ventricle is soft and flabby. Right Lung: Anterior edge of upper and middle lobe

slightly emphysematous; and both surfaces of pleura show some fine injection, extending over greater part of anterior surface of upper and middle lobe, and slightly over posterior surface. The bronchi contain a quantity of frothy mucus, with some solid flakes. The upper lobe is very œdematous throughout. The middle and lower lobes present the same features, except that the latter is less crepitant and partly collapsed. Left Lung: Surfaces of pleura adherent over lower lobe and between the lobes. Similar condition of bronchi and engorgement (marked) of lung as on right side. Spleen: Capsule adherent to surrounding parts. The organ is large, congested, rather soft, and of a claret tint. It contains two small infarcts—one about one-eighth of an inch in diameter, half an inch in depth, and of linear shape; the other wedge-shaped, a little larger than a pea. Central parts of infarcts are caseous, yellow, and surrounded by a zone of hyperæmia and hæmorrhage. Kidneys: Right—Capsule peels off easily; surface mottled, pinkish, gelatinous, injected. There is a depression on the posterior surface, corresponding to a yellow infarct, seven-eighths of an inch at base, in the cortex. At base of one of the pyramids is another small caseous nodule. Cortex swollen, pale, and fatty; pyramids pink, slightly congested at bases. Left is swollen; surface smooth and rather more congested than the other, and cortical swelling more marked. Liver: Surface smooth; cut surface has a rather nutmeg character and greasy feel; lobules well defined. Brain normal.

Microscopical examination of the kidney showed it to be the seat of diffuse inflammation. The tubules in the cortex were swollen, and blocked by epithelium, in which the nuclei were concealed by granular materials. There was also, especially around the glomeruli, a large amount of leucocytal infiltration. This interstitial change varied at different parts—in places the cells being so numerous as to resemble suppurating foci. No micrococci were seen, but no special method was employed for their detection.

Remarks.—This case is a very typical instance of “ulcerative” endocarditis, with marked clinical evidence of septic poisoning. It is the third case of this kind that has been in Dr. Coupland’s wards during the past twelve months. The other two will be subsequently related, and general considerations upon the disease will be reserved until the series is complete. A few points of special interest in the present case may now be briefly dealt with. 1. The temperature curve: This has been sufficiently described above. The rapid, although periodic, recurrence of rigors and pyæmia, the absence of sweating, and the failure of quinine to modify the type of the fever, at once placed it out of the category of intermittent fever, which it simulated, and led to much significance being attached to the cardiac bruit. 2. Was there a rheumatic element in the case? The man attributed his illness to exposure, and for a short time after that he appears to have suffered from pain in the leg; but there was otherwise no indication of rheumatism, and it is possible that he was at the same time exposed to septic influences, for he caught cold in a cemetery. Although he had never been ill before, he was of unhealthy type. 3. The heart-lesions were of three distinct dates. There were the fibrosis and calcification of the aortic valve (the calcareous deposit being embedded in the midst of the thickened tissue), evidently of very long standing, an example of that non-rheumatic progressive sclerosis of valve that is so frequently exemplified in mitral stenosis. The etiology of such a condition is unknown. In this case the mitral valve did not show much evidence of such a lesion, for its cusps were of normal size; however, some of its chordæ were suspiciously thick. Then there was the vegetation, which, although of large size, was limited to the anterior mitral cusp. The occurrence of calcareous deposit in this vegetation is evidence that the latter must have existed for some time, and yet no clinical reason can be adduced for its existence prior to the onset of his fatal illness, a period of two months. Can calcareous infiltration proceed in so short a time? To be sure, nothing is definitely known about the time taken for such degenerations, and it is only improbable on comparison with other cases of vegetating endocarditis of longer standing. On the other hand, had the vegetation existed for a long time, it is, at least, remarkable that it had not excited more profound change, either in the opposite cusp, the auricle, or the aortic valve, by friction. The recent changes, undoubtedly secondary

to the vegetation, consisted in ulceration of some of the chordæ, and commencing inflammation of the auricular endocardium above the valve. In the supervention of acute changes upon a chronically diseased valve the case conforms to the general rule; and it is interesting that the aortic valve should have escaped such recent change. 4. The evidences of embolism were few, only two organs—the right kidney and the spleen—exhibiting them. The renal infarcts were manifestly of old date, and suggest the view that the mitral disease was of some standing; those in the spleen were small and comparatively recent—probably the result of the ulcerative process. 5. The occurrence of a diffuse nephritis, apart from manifest embolism, is interesting; although its irregular distribution suggests embolic origin. It probably arose from a combination of conditions, of which minute multiple embolism forms one factor; the others being the febrile process and the general blood-contamination. It was comparable, therefore, to the softening of the spleen. 6. The sudden death is sufficiently explained by the presence of the mitral vegetation. At the post-mortem examination, this was found projecting into the auricle, owing to a folding back of the cusp, no longer firmly bound by tendinous cords. The regurgitant eddy of blood must have swept back the cusp and vegetation, and the latter being unable to return, became fixed in the orifice, causing stagnation of blood and the arrest of the heart in a state of diastolic distension.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, FEBRUARY 25, 1882.

THE PEABODY DONATION FUND.

THE annual report, for the year 1881, just published by the Trustees of the Peabody Donation Fund, shows that the next gain of the year, from rents and interest, amounted to £29,751. Up to the end of the year the Trustees had provided for the artisan and labouring classes in London 6100 rooms, exclusive of bath-rooms, laundries, and washhouses. The rooms comprised 2787 separate dwellings, occupied by 11,459 persons. During the year 432 new dwellings had been opened, and for these rooms there were upwards of 3000 applicants. The death-rate in the Peabody Buildings for the twelvemonth “was 17·22 per 1000, about 3·98 in

1000 below the average of all London for the same period. The actual number of deaths is taken from returns furnished by the district registrars, and the calculation has been checked and confirmed at the General Register Office." The average weekly earnings of the head of each family in residence at the close of the year was, we are told, £1 3s. 7½d.; and the average rent of each dwelling was 4s. 5½d. per week, and of each room 2s. The dwellings consist of from one to three rooms in most of the groups of buildings; but in two groups dwellings containing four rooms are provided. The average weekly earnings of each head of a family does not go very far, however, in showing that some of the dwellings are not occupied by families earning large wages; so the Trustees give also a table showing the employment of the tenants; and they further take the opportunity of answering objections that have been taken to their administration of the Trust. It has been objected, the Trustees remark, that "in following the system upon which they have acted for nearly twenty years they have departed from the expressed intentions of the founder, and that the benefits of the Fund are enjoyed by a class for which they were not originally intended"; and their reply is that Mr. Peabody fully knew and approved of all the proceedings of the Trustees, and was well informed as to the occupations and wage-earnings of the persons inhabiting those buildings that were finished and occupied before his death. The sums given and bequeathed by him were £150,000 in 1862, £100,000 in 1866, £100,000 in 1868, and £150,000 in 1873. The Spitalfields and Islington buildings were finished and occupied before the date of Mr. Peabody's second gift; and in acknowledging to the Trustees the receipt of their report issued in December, 1865, he wrote: "The capital will form a fund, the operation of which is intended to be progressive in its usefulness, as applied to the relief of the poor of London, as correctly defined in your report." In that report, the occupants of the then existing buildings were set forth as in the report now before us, and as including the same classes as now; namely, charwomen, monthly nurses, basket-makers, butchers, carmen, carpenters, firemen, labourers (in very large proportion to the other classes), porters, omnibus-drivers, sempstresses, shoemakers, tailors, smiths, letter-carriers, cab-drivers, costermongers, turners, policemen, warehousemen, waiters, and the like. Also, in the trust-deed, dated May 31, 1869, prepared under the personal supervision of Mr. Peabody, the following passages occur:—

"The operation of the Fund is intended to be progressive in its usefulness."

"It will act more powerfully in future generations than in the present. It is intended to endure for ever; and it is the ardent hope and trust of the said George Peabody, that within a century the annual receipts from rents for buildings of the improved class, hereby authorised, may present such a return that there may not be a poor labouring man of good character in London who could not obtain comfortable and healthy lodgings for himself and his family at a cost within his means."

This hope and trust may appear Utopian; but, at any rate, the Trustees have a right to hold that "Mr. Peabody fully understood and personally sanctioned the two leading principles on which his Trust has, since its origin, been administered—first, that the buildings shall be occupied by tenants of the working-classes paying a reasonable rent; second, that the income thus obtained shall be applied to the construction from time to time of fresh buildings similar to those already existing, so that the operation of the Fund may admit of indefinite though gradual extension"; and a lasting benefit may thus be conferred on the working poor of London.

The sum given and bequeathed by Mr. Peabody was £500,000, and the added money received for rent and interest

amounts to £280,448 4s. 9d., making the total Fund on December 31, 1881, £780,448 4s. 9d.—a magnificent fund of which to have the management for the benefit of the working-classes.

SPINAL DISEASE AND SAYRE'S TREATMENT.

AMONG the many subjects discussed at the late Medical Congress, there were few of greater practical importance than the treatment of spinal curvature. The subject is a very old one, and has long been at once the despair and opprobrium of surgery. Partly from its inherent difficulties, and partly from the social condition of the larger proportion of those who fall victims to the disease, cases of spinal caries had come to be regarded too much in the light of incurables, for whom little or nothing could be done; at all events, surgical enterprise seemed wanting in this particular field—large in reality though it was—and a complete standstill was the not unnatural result.

It is now just about four years since Professor Sayre somewhat startled the profession by propounding a very novel, ingenious, and, at the same time, simple, treatment for spinal disease; this consisted essentially of a fixative apparatus, to be applied while the diseased part is believed to be in a condition of physiological rest. To say that the demonstration and advocacy of this treatment mark a new era in this department of orthopædic surgery is no exaggeration. For a number of surgeons who do not approve of Sayre's teaching—some in part, others as a whole—have nevertheless devoted themselves with renewed enthusiasm to the subject; while others again—and they form a large majority of practitioners—have taken up Sayre's ideas, improving, modifying, or adapting them in one way or another, and have worked with energy, to the great advantage of the unfortunate subjects of this chronic and intractable disease. The subject was considered worthy of a place in the list of special subjects selected by the Executive of the Congress for special discussion; and the interesting debate which followed, while it fully justified the selection which had been made, gave an opportunity of hearing what practitioners from all parts of the country really thought about the plan.

We cannot but think that such an opportunity was really wanted, for several matters came up in the discussion which showed that the method was not always being carried out wisely; and that Sayre's own teaching was really leading to the adoption of measures which it nevertheless—paradoxical as it may seem—especially warned against. We now specially refer to the question of extension. Sayre, in his work on Spinal Curvature, has written, "*Do not attempt the impossible—do not try to straighten curved spines, the result of caries, that have become partially or completely consolidated. If nature has already thrown out ossific matter, and adhesions are beginning to take place, do not break them up by too severe extension, but simply extend the patient very slowly, so that the contracted muscles alone will yield, until the patient says he feels comfortable; and never extend the patient beyond that point.*" Yet undoubtedly many surgeons had taken up the idea that extension was part of the treatment, and that by it a certain elongation of the body could be obtained. The tripod, with its pulleys, its chin and axilla straps, all suggested real and tangible extension; while the altered shape of the spinal curve, as taken by the flexible metal tape, before and after, gave additional evidence of what was sought and could be obtained by extension. Thus it was well that this point should be discussed, its dangers referred to, its disadvantages made manifest; and no better opportunity could have been wished for than such an international gathering as the Medical Congress.

It is needless to say that all the dangers and the unphysiological nature of undue extension were brought forward by various speakers, or that Professor Sayre utilised the opportunity to correct any misunderstanding that might exist as to his own views of extension and to the extent to which it might safely be pushed. So that at the present time, whatever misunderstanding may hitherto have crept in, Sayre disclaims any idea of separating ankylosed or ankylosing bony surfaces, or of straightening spines which have been curved in the process of destruction or repair of spinal caries. He would simply overcome muscular action by slow and steady extension, never going beyond the point at which the patient feels himself comfortable. This question of extension was one of the most debatable in the whole plan; and so long as an idea was entertained that the patient was to be extended until some visible alteration in the curve existed (and such an idea really did exist in many minds), there was manifest danger that serious accidents might occur while the treatment was being carried out.

The question of personal cleanliness also came on for discussion. It does at first seem somewhat contrary to one's notions of cleanliness that a patient should be encased in an immovable plaster jacket, and be ordered to wear it for three or four months without changing it and without washing (for this is simply impossible). But, thanks to the ingenuity of Dr. Oxley, of Liverpool, even this drawback has been done away with. Dr. Oxley puts on two flannel jackets instead of one, as originally recommended by Sayre; the innermost of the two can be changed without any difficulty whenever the patient or his friends wish it. In certain classes of society this will prove a great gain; while in others, though most needed, it is as likely to be as little appreciated as the ordinary rules of personal hygiene are, for the most part, even by the healthy.

Some speakers questioned whether physiological rest was obtained so long as a patient was allowed to go about, no matter what kind of an apparatus he might be provided with. No doubt there is a good deal of truth in this argument. But, on the other hand, rest is a relative expression: the question is always one of degree, and the method of treatment—or rather the nature of the spinal apparatus which a patient is recommended to wear—is quite apart from the nature of rest in the foregoing sense. It is not a slight recommendation of Sayre's jacket that so much movement, without pain or inconvenience, at once becomes possible in cases in which, previous to the application of the jacket, it was quite or all but impossible. We venture to think that there are stages in this, as in other diseases, when physiological rest of the diseased part is not of greater importance than physical rest of the entire body; we have ourselves more than once had to caution patients against attempting too much outdoor exercise. The recumbent position, advocated by some surgeons as the only plan necessary, and efficacious in all cases, is no doubt a great gain for any patient suffering from spinal caries. On the other hand, exercise in the open air, with suitable support, as well as a support which holds the vertebræ together during the various possible movements of the spine, even while it is recumbent, are as obviously physiological proceedings as can well be imagined. We believe, then, that herein consist at once the advantage and the disadvantage of Sayre's plan of treatment. It secures physiological rest for the local disease, but it allows of so much physical exertion of all kinds that some of the advantages of the physiological rest are neutralised. It was well, therefore, that the advocates of recumbency should have made themselves heard; and the wise will doubtless adopt such parts of this plan as are good, and engraft them on to the newer view that outdoor exercise, fresh air, and change of scene

tend to keep up the powers of nutrition, provided the requirements of physiological rest for the diseased part are not thereby seriously interfered with, and so bring about the more rapid restoration of the diseased parts to their normal conditions.

The American plan possesses another advantage: that of inexpensiveness. A jacket can be applied at an expense of a few shillings; it is applicable for all ages, and any surgeon of ordinary intelligence can put it on. Its general applicability renders it available in the very earliest stages in which the disease can be recognised; no subsequent care, as regards the jacket itself, is called for; it cannot be broken, nor get out of order; it serves as a barrier against accident, and as a buffer against blows and injuries of all kinds. For certain classes these are, of course, inestimable advantages.

There was, we think, one omission at the discussion. We refer to the absence of any personal testimony from those who had worn these jackets. If some of the surgeons had brought ten or a dozen persons to be seen and cross-questioned, some valuable hints and information might possibly have been obtained, while the public nature of such testimony would have largely outweighed anything that single individuals may report for themselves under other circumstances. Our own experience is certainly favourable to the plan as a whole; while the views more recently expressed at the Congress tend to remove any doubt we may have felt on individual points of the plan, as previously understood and practised by the majority of English surgeons.

Too much credit cannot be given to the enthusiastic American surgeon who has come over to Europe several times to advocate and demonstrate his plan of treatment. Apart from the advantages of the treatment itself, his enthusiasm has spread to others, and directed attention and surgical acumen to a common disease, which latterly had come to be regarded too much in the light of a worn-out subject, in which there was nothing more to be attained.

FLOATING KIDNEY.(a)

DR. LANDAU of Berlin, having observed no fewer than forty-five cases of floating kidney in his own gynaecological practice, has taken occasion to enter exhaustively into the whole question in a compact, and at the same time very readable, monograph. Up to 1859, the number of cases recorded was about thirty-five, and Dr. Landau has been able to collect the records of seventeen post-mortem examinations. The most accurate anatomical descriptions of the parts have come down to us from pre-microscopic times; in the post-mortem registers of recent years, the fact of a movable kidney is noted about once in a thousand necropsies, but generally without details. There is a short paragraph on the subject by Riolanus (Leyden, 1649), written in the terse and compact style to which the Latin tongue readily lends itself, and expressing in well-weighed words not only all that Riolanus had himself observed, but also some of the most essential points in the causation, symptoms, and consequences as now understood. Statistics of all the cases recorded show clearly that floating kidney occurs generally on the right side, and in women who have borne children once or oftener. The condition occurs sometimes in women on the left side, and about as often on both sides, and it is not unknown in men. To get at the causation, one must consider the anatomy of the parts, particularly on the right side, and the especial risks and liabilities of women who have borne children. The kidney, as Haller expressed it, lies in a nest; it is a retro-

(a) "Die Wander-Niere der Frauen," von Dr. Leopold Landau, Privatdocent an der Universität Berlin. Pp. 104, with 9 woodcuts. Berlin, 1881.

peritoneal organ, receiving no true ligamentous fold from the serous covering of the abdomen, but kept in its place by the short and direct course, as well as mesial insertion, of its bloodvessels, and by sub-peritoneal connective tissue on its upper surface, and a considerable bed of fat on its external and under surfaces. If the investment of sub-peritoneal connective tissue and fat be named "ligamentum renis," it is well to have it understood that the ligament is one of those anatomical structures which students in the dissecting-room are sure to be disappointed with. Perhaps the truest piece of ligament in all the connexions of the kidney is at its outer border, where the peritoneum turns somewhat abruptly outwards from the under surface of the colon (ascending or descending) to become the parietal layer. A lax condition of the peritoneal fold of the right or left flexure of the colon is noted in a considerable proportion of the cases examined post-mortem; and no doubt Dr. Landau is right in saying that such elongation of the mesocolon at the flexures is not a congenital but an acquired predisposing cause of floating kidney. At the same time it should be kept in mind that, in ordinary dissecting-room subjects, there are frequent variations in the extent of the ascending and descending mesocolon; the peritoneum may go all round the colon, and the two layers may meet behind it to form a true mesocolon, but it is quite as common to find that the piece of ascending colon between the cæcum and the hepatic flexure is covered by peritoneum only over the anterior two-thirds of its circumference, leaving a bare portion behind joined to the front of the kidney by connective tissue; and the same arrangement may exist on the left side, between the end of the splenic flexure and the beginning of the sigmoid. The anatomical causes of floating kidney may be briefly enumerated as follows: disappearance of the fat about the kidney, and consequent loosening of the peritoneum, especially rapid disappearance, as in acute fevers and acute phthisis; relaxation of the abdominal walls after pregnancy, or in consequence of large ovarian or other pelvic tumours; prolapse of pelvic organs; tumours of the suprarenal and pancreas and of the kidney itself; and possibly, in a remote way, the alleged turgescence of the kidney (in sympathy with the menstrual turgescence), and consequent stretching of the tissues enclosing it. Those conditions of the pelvic viscera, especially cancer of the uterus, which tend to cause hydronephrosis, are indirectly a cause of movable kidney. Among the physical as distinguished from the anatomical causes are—direct blows or injuries, or repeated strains; coughing, especially where there is wasting of the fat; tight lacing. Reasons are given for the greater frequency of movable kidney on the right side: the right kidney is less closely and less firmly fixed to the back wall of the abdomen by the hepatic flexure of the colon than the left is by the splenic flexure; the left kidney is prevented from slipping downwards by the position of its vessels over the lower (horizontal) end of the duodenum, and by the shortness of the renal artery on that side; the left renal vessels are supported by the head of the pancreas by means of connective tissue. The kidney, when it moves, will proceed downwards, forwards, and inwards.

The rest of our space must be devoted to Dr. Landau's more original chapter on symptoms, diagnosis, prognosis, and treatment. The important symptoms are caused by the traction or compression by the kidney, acting as a foreign body, upon nerves, vessels, and the viscera, and by functional disturbances. Hypochondria is often observed in persons with a movable kidney, especially if the movements be palpable and constantly attracting notice. Hysteria is not unfrequently associated with the lesion, the theory being not so much that the hysteria is caused by it, as that it is pre-existing and becomes intensified. Circumscribed neuralgias, often flying about, and appearing even in the intercostal

spaces, or on the opposite side of the body, are a less vague form of nervous implication. The symptoms referable to the great vessels are rare, but œdema of the lower extremity of the affected side, from pressure on the vena cava, has been observed. Disturbances of the digestive system give rise to an extensive group of symptoms, the *rationale* of which is exceedingly difficult; they range from slight dyspeptic pains to sickness, chronic catarrh, jaundice, and even to attacks like peritonitis. The explanation of these symptoms has generally been looked for in the relation of the right kidney to the middle portion of the duodenum. Dr. Landau has an interesting section, with woodcuts of preparations, on hernia or incarceration of the movable kidney, or twisting of it upon its axis; an accident which produces sudden symptoms—a sharp pain, followed by tenderness of the whole abdomen, giddiness, cold sweat, small pulse, shallow breathing. Sometimes there is nausea and frequent vomiting; the urine is dark and scanty, and may be mixed with blood; there may or may not be a shivering attack, and fever may be slight. The threatening symptoms reach their height from the fourth to the sixth day; recovery is marked by the excretion of copious clear urine of low specific gravity. The circumstances relating to hernia of the floating kidney are discussed in an elaborate manner. The author has also interesting new observations and criticisms on the secretion and excretion of the urine as affected by the mobility of the kidney, and on the connexion between the lesion in question and hydronephrosis. This is a valuable section of a monograph which is of high excellence generally, and the reader may be recommended to the perusal of the original. The determination of the existence of a floating kidney by physical signs, and the diagnosis of the condition from other tumours, pelvic or abdominal, are notoriously difficult in some cases, while they are sufficiently easy in others. The prognosis is favourable, and the author has nothing good to say of the practice of extirpating the floating kidney; the operation appears to have been done six times, and with an immediately fatal result in three of the cases. As in displacements of the uterus, and in hernia, the principle of treatment is to replace the organ, and, if possible, to keep it in its place. The latter task is of course the chief difficulty, and Dr. Landau says that a great number of complicated appliances have been devised to that end. The concluding ten pages of the monograph are occupied with a succinct account of a few of the cases observed by the author, and with a tabular synopsis of the whole forty-five.

THE WEEK.

TOPICS OF THE DAY.

In several inquests that have recently been reported, the juries have recorded verdicts attributing death to the effect of the fogs which so persistently existed in the metropolis at the commencement of the current month; and although the verdicts for which coroners' juries are responsible are not always of the most reliable description, in the present instance they have been singularly confirmed by the testimony of the Registrar-General. In the official return for the week ended the 11th inst., it is shown that the death-rate from all causes, which had been equal to 22·8, 25·4, and 27·1 per thousand in the three preceding weeks, further rose to 35·3 in the week under notice. This is a higher rate than any recorded in the metropolis since the week ended February 7, 1880, when the rate was 45·7. It was noted in the weekly return for that date that the nearest approach in recent years to the excessive mortality then recorded was in the week ended December 20, 1873, when the rate was 37·5. The excessive mortality on each of these three occasions

was consequent upon and doubtless determined by a succession of dense fogs accompanied by low temperature. No age escapes the noxious influence of these fogs, the mortality having risen on each of the three occasions at every period of life; but the effect is most marked on persons of advanced years, and least so on children under five years of age. The return for the 11th instant further records that the deaths referred to diseases of the respiratory organs, which had been 415, 543, and 647 in the three preceding weeks, in the week under notice rose to 994, and exceeded the corrected weekly average by no less a number than 430; of these 699 were attributed to bronchitis, and 185 to pneumonia.

The question of establishing a London ambulance service has been advanced a step further at a meeting which was held last week at the Charing-cross Hotel, to consider and arrange the details of the scheme. Among those present were Sir Edmund Henderson, Sir William Gull, the Hon. Reginald Capel, Mr. T. Holmes, Mr. Buxton, Mr. Crossman, and Sir E. H. Currie. Mr. Crossman having been appointed chairman of the Council, a discussion took place as to the suitability of various spots (such as hospitals, railway and police stations) for placing horse ambulances, and as to the nature of the aid to be given to sick and wounded persons. Ultimately, an executive committee was appointed, consisting of the following:—Mr. J. H. Crossman (chairman), Mr. T. Holmes, Mr. J. H. Buxton, Sir E. H. Currie, Dr. Howard, Mr. Walker, Mr. Barrington Kennett, Mr. W. A. Burdett-Coutts, and Sir Edmund Henderson. If we are not distinguished in this country for moving very quickly, we at least do so with effect: it is to be hoped that it will prove so in the present case.

The promoters and supporters of the scheme for providing a public park for Paddington have had by no means easy sailing since they embarked upon their well-meant enterprise. At one time success seemed almost certain, at another the case appeared well-nigh hopeless. The last meeting of the Metropolitan Board of Works has again changed the outlook for the better. The report of the Works and General Purposes Committee recommended that the Paddington Park Committee be informed that, after giving very careful consideration to the representations which had been placed before them, the Board were unable to depart from the decision at which they had arrived to oppose the Bill for providing this park. Mr. Selway, in moving the adoption of this report, said that supposing they took the value of the ground at £3000 per acre, that sum was far larger than the Board had ever expended on the acquisition of an open space. They had to consider whether, with the rapidly increasing rates of the metropolis, it was prudent to expend £3000 per acre on a piece of ground anywhere. The Board would, if this project were carried out, have to pay a sum of £30,000, and this was too large an amount to be expended for so small a boon. Mr. Harben, however, moved as an amendment—"But if the promoters of the Bill will give an undertaking to alter it in a manner satisfactory to the Board, they will discontinue their opposition, and will contribute a sum equal to £1000 per acre towards the cost of the purchase of the ground required for the formation of the proposed public park in the parish of Paddington." After considerable discussion the amendment was carried, on a division, by twenty-one votes against fifteen.

According to official statistics, the total population of the German Empire, as given by the last census, was 45,234,061, of whom 44,958,205 were natives, and 275,856 foreigners. From another point of view, the population of the Zollverein numbered 44,766,183, and that outside its limits 677,659. Of males there were 22,185,433, and females 23,048,628

Prussia contributes 13,414,866, or between a third and a quarter of the whole, the next most populous States being Bavaria, with over two millions and a half, and Saxony, which is the most populous of all for its area, with one million and a half. The greatest number of suicides occur in Saxony, Leipzig alone recording more self-murders than any of the other great European capitals.

The poor of the metropolis have certainly good reason to be dissatisfied with the law relating to paupers who die in hospitals, as it was recently explained at the Southwark Police-court. A woman made application there for assistance to enable her to remove from Guy's Hospital and bury the body of her father, who had died there, and which would otherwise be sent to the dissecting-room. The magistrate asked if she had applied to the parish officers. He was informed that the relieving officers of both St. George's and St. Olave's Unions had attended at that court, and announced that they had distinct instructions not to bury paupers who died in Guy's Hospital, unless they belonged to one or other of the parishes. The magistrate observed that unfortunately the parishes were protected by Act of Parliament, which, however, gave the guardians discretionary power to act in a more humane manner. In this case he had consulted with Dr. Steele, the Superintendent of Guy's Hospital, but who had no funds to employ in removing and burying the poor who died in the Hospital. He had arranged with Dr. Steele to lay the whole matter before the Local Government Board, so that an alteration might, if possible, be made regarding the dead poor at the Hospital; it was certainly of the utmost importance that it should be settled. The magistrate further informed the applicant that in the present case he, acting with Dr. Steele, had arranged for all the expenses which would be incurred in the removal and burial of her relative.

The Royal Commission on the Medical Acts met on the 17th, 18th, 20th, and 21st of February, when there were present—the Earl of Camperdown (chairman), the Bishop of Peterborough, the Right Hon. W. H. F. Cogan, the Master of the Rolls, the Right Hon. G. Selater-Booth, M.P., Sir William Jenner, Mr. Simon, C.B., Professor Huxley, Dr. Robert M'Donnell, Mr. Bryce, M.P., and the Secretary (Mr. John White). From the number and frequency of the meetings held since, according to rumour, the Commission began to consider its report, it is evident that a great difference of opinion obtains among the members on some important point, and it is not risking much to assume that that point is in some form or shape the conjoint scheme question.

The magistrate at the Southwark Police-court (Mr. Bridge) has recently given a rather important decision on the question as to whether or no the School Board are bound to pay the fee for a medical certificate, when one is required by the officers of the Board. William Cornelius was summoned by the Superintendent of Visitors for not sending his son to school. The visitor deposed that the boy had only attended twelve times during seventy-nine openings, that he had seen the child in the street, and had been told that he was too ill to attend. Mr. Tatlock appeared on the part of Mr. Higgins, the medical officer under whose care the child had been, to test the legality of the Board's proceedings. He contended that where the officers of the Board, not being content with the statement of the medical man attending the child, required a medical certificate, they are bound to pay for it. He produced a document, showing that an arrangement had been made between Mr. Higgins and the Education Department regarding such payments, and their consent to them. He called Mr. Higgins, who is Certifying Factory Surgeon for Southwark, Bermondsey, Rotherhithe, and elsewhere, and appears to be connected with some dispensary. The boy

had been under his care with measles and congestion of the lungs, and was preparing to undergo an operation for disease of the palate. Mr. Higgins's assistant met the School Board officer in the street near defendant's house, and told him the boy was not fit to go to school. The officer asked for a certificate to lay before the Committee, when he was told that Mr. Higgins declined to give a certificate unless paid for it by the Board. After considerable argument on both sides, Mr. Bridge said he was of opinion that, where a certificate was demanded by the School Board officer after the doctor had stated that a child was unable to attend school, the School Board were bound to pay for such medical certificate. He therefore made an order for the School Board to pay £1 5s. costs, and dismissed the case against the father.

Dr. Diplock, the Coroner for West Middlesex, has recently issued his annual report, from which it appears that during the year 1881 he had 964 cases for inquests reported to him, in 273 of which, after investigation, he did not consider inquests necessary. The number of inquiries held by him was actually 691; these are classified in his report to the Home Office as follows:—263 on children under one year of age, 30 above one year and under sixteen, and 398 on persons above that age. There were 18 verdicts of murder and 10 of manslaughter, 31 cases of suicide, 251 violent deaths, and 383 from other causes. The money advanced by Dr. Diplock at the inquests, by way of fees and disbursements, amounted to £1294, the average sum paid at each inquest being £1 17s. 5d.

The number of lunatics, idiots, and persons of unsound mind, detained in workhouses in England and Wales, on January 1, 1881, was 16,811—an increase of 347 on the number so detained on the corresponding day of the previous year. Of this number, however, 4718 were inmates of the Metropolitan District Asylums at Leavesden, Caterham, and Darenth, which are in the legal position of workhouses within the meaning of the Lunacy Acts; so that 12,093 lunatics or weak-minded persons were detained in workhouses proper.

Lord Leigh recently presided at the annual meeting of the supporters of the Midland Counties Hospital for Incurables, held at Leamington. The report showed that all the debt had been liquidated, and that there was a balance remaining of £138. There were at present twenty patients under treatment, of whom five were entirely free, and the remainder paid from half a guinea to a guinea per week. The Chairman congratulated the subscribers on the satisfactory state of the institution, and the good it was accomplishing amongst a class who had special claims for sympathy and assistance.

THE METROPOLITAN ASYLUMS BOARD.

At the last meeting of the Managers of the Metropolitan Asylums Board, amongst other business brought forward, a letter was read from the Thames Conservancy Board, enclosing a claim from Messrs. Rennie for expenses caused by the proximity of the Board's hospital-ships at Deptford to their shipbuilding yards on the banks of the Thames. Sir E. H. Currie said he wished the Board had never taken the slightest responsibility for having the ships placed in their present position. Their ships were anchored at such a spot that every vessel going up or down the river was compelled to pass close to them. He had no doubt that Messrs. Rennie had incurred exceptional expense in launching their ships, consequent upon the contiguity of the hospital-vessels to their yard. The letter was ordered to be referred to the Local Government Board. A letter was also read from the Guardians of St. Mary, Islington, enclosing a resolution passed by them

on the subject of the Asylums Board's expenditure, and stating their opinion that the time had arrived when a Parliamentary Commission should be appointed to inquire into, and report upon, the working of the Acts constituting the Asylums Board, and the amount of benefit derived from them, and further, that it was of essential importance in any such Commission that ratepayers should be adequately and directly represented upon it. The returns from the asylums presented, showed that during the past fortnight 134 small-pox patients had been admitted to the different hospitals of the Board (excepting Fulham and Hampstead), 22 had died, 99 had been discharged; 433 remained under treatment in the asylums and ships, and 6 at Darenth—a total of 439, or 26 less than a fortnight ago. The fever returns showed that during the fortnight 88 patients had been received, 18 had died, and 103 had been discharged, leaving in all 357 under treatment.

THE LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

PROFESSOR PARKER, who will bring his course of lectures at the Royal College of Surgeons, "On the Morphology of the Mammalian Skull," to a close this day (Friday), will be succeeded on Monday next by Professor Flower, LL.D., F.R.S., who will deliver nine lectures "On the Anatomy, Physiology, and Zoology of the Edentata." The following is his programme, viz.:—General characters of the order. Family *Bradypodidæ*; the sloths. *Megatherium* and other great extinct ground sloths of America. Family *Myrmecophagidæ*; the true anteaters. Family *Dasypodidæ*; the armadillos. *Glyptodon* and other extinct armadillo-like animals. Family *Manidæ*; the pangolins or scaly anteaters. Family *Orycteropodidæ*; the African anteaters or aard-varks. The extinct Edentata of the Old World. Classification of Edentata and relation to other groups.

THE PARIS WEEKLY RETURN.

The number of deaths for the sixth week of 1882, terminating February 9, was 1357 (729 males and 628 females), and among these there were from typhoid fever 31, small-pox 10, measles 26, scarlatina 3, pertussis 5, diphtheria and croup 52, erysipelas 13, and puerperal infections 13. There were also 45 deaths from tubercular and acute meningitis, 242 from phthisis, 62 from acute bronchitis, 154 from pneumonia, 66 from infantile athrepsia (20 of the infants having been wholly or partially suckled), 126 from diseases of the cerebro-spinal system, and 37 violent deaths (23 males and 14 females). The number of deaths registered exceeds that of any of the four preceding weeks, the excess being chiefly due to an increase from acute and chronic diseases of the respiratory organs, and especially from phthisis. Deaths from puerperal infections, erysipelas, and measles are also more numerous than they have been during the four preceding weeks. The births for the week amounted to 1278, viz., 627 males (451 legitimate and 176 illegitimate) and 651 females (486 legitimate and 165 illegitimate): 110 infants were born dead or died within twenty-four hours, viz., 58 males (44 legitimate and 14 illegitimate) and 52 females (34 legitimate and 18 illegitimate).

THE BRITISH NATIONAL VETERINARY CONGRESS.

PART I. of the "Proceedings of the British National Veterinary Congress," held in the rooms of the Society of Arts, in July last, has recently been published; and Part II., which is to contain the reports of committees and of colonial sections, will shortly follow in the form of an appendix. The project of assembling the members of the veterinary profession for the discussion of urgent and important professional topics originated with a few veterinarians attending the sittings of

the British Medical Association held at Cambridge during August, 1880. The course of the discussions at the Public Health Section showed that much information in the possession of the veterinary profession required to be made generally public; and encouragement was derived from the fact that on the Continent, in various countries, gatherings of veterinarians had been recently tried on a large scale, and with marked success. Again, the profession in the United Kingdom had lately become consolidated by the admission of the Highland and Agricultural Society's graduates to the membership of the Royal College of Veterinary Surgeons; and, lastly, the proceedings at several meetings of veterinary societies had rendered it evident that some opportunity should be given of ventilating subjects of more than local professional importance, and on which the votes of a large number of members of the profession from different parts of the kingdom should be taken. The sittings of the Congress lasted two days, and the proceedings appear to have been satisfactory to the large number of members who attended it.

THE ACADEMIE DE MÉDECINE.

A SHARP contest has just taken place in this body to fill a vacancy in its list of "free associates," or honorary members, among whom are placed the illustrious names of Profs. Pasteur, Chevreuil, and Milne-Edwards. The committee appointed to examine into the claims of the various candidates declined their classification in order of merit, and returned a list in alphabetical order—viz., MM. Foville, Krishaber, Magitot, Mesnet, De Ranse, and Worms. There was a large attendance of Academicians, and the ballot had to be taken thrice before the necessary majority could be obtained, the contest lying between MM. Mesnet and Worms. Finally, of the ninety-two votes, M. Mesnet obtained fifty-six and M. Worms thirty-three, three remaining blank.

THE HUNTERIAN SOCIETY.

At the annual general meeting of this Society, which took place in the London Institution on Wednesday, the 8th inst., the following officers were elected for the ensuing year:—*President*: J. Hughlings-Jackson, M.D., F.R.S. *Vice-Presidents*: J. E. Adams, Esq.; F. Gordon Brown, Esq.; Waren Tay, Esq.; M. Brownfield, Esq. *Treasurer*: H. I. Fotherby, M.D. *Librarian*: P. L. Burchell, M.B. *Orator*: George Roper, M.D. *Hon. Secretaries*: R. Clement Lucas, B.S.; G. E. Herman, M.B. *Council*: T. E. Bowkett, Esq.; C. Davidson, Esq.; W. J. Dickson, M.D.; E. Dukes, Esq.; Alex. Grant, M.A., M.D.; E. G. Gilbert, Esq.; W. T. King, Esq.; Stephen Mackenzie, M.D.; H. Port, M.D.; W. Rivington, M.S.; G. J. B. Stevens, Esq.; R. M. Talbot, Esq.

PECULIARITY IN THE URINE IN A CASE OF ACUTE PNEUMONIA.

At the last meeting of the Medical Society of the College of Physicians in Ireland, held on Wednesday, February 1, Dr. Walter Smith made a communication relative to a peculiarity observed in the urine of a patient suffering from acute pneumonia. A young gentleman, aged twenty-two years, who previously had not been in very robust health, caught cold on the evening of January 20, 1882. That night he was seized with rigors, headache, and vomiting, and the temperature ran up to 105°. He complained of intense pain over the præcordial region. Marked irritability of stomach with frequent vomiting continued for several days. On January 24—the fifth day of his illness—the physical signs of early consolidation were detected in the base of the left lung. The pneumonia extended, involved the other lung, and the constitutional symptoms became very grave. The

young man never rallied, and sank early in the morning of January 28. The temperature curve exhibited several remissions, and, tested upon numerous occasions, the temperature in the *right* axilla was higher than in the left, sometimes by more than 1° Fahr. Some of the urine passed on the 24th and 25th was examined. That of the 24th was very turbid with lithates; that of the 25th nearly clear. Each specimen was high-coloured and acid; chlorides markedly deficient. 1. *Serum-albumin*: Tested by the usual methods, a very moderate amount could be precipitated; no distinct flocculi. 2. *Serum-globulin*: Saturation of the urine with sulphate of magnesium threw down an abundant precipitate of globulin. 3. The urine, freed from albumen, yielded an opaque white precipitate with tannic acid, and also with phospho-tungstic acid, and was rendered turbid by alcohol. The tannin precipitate dissolved by heat and was reprecipitated on cooling. These reactions suggested the presence of peptone, but, since the urine when freed from mucus (by acetate of lead) and albumin (by precipitation along with basic acetate of iron), yielded no colour with Millon's test, and failed to give the xantho-proteic reaction, the presence of any albuminoid seems to be negatived. Moreover, all attempts to get the characteristic biuret-reaction for peptone ended in failure. The patient had been treated with sulphate of quinia, but direct testing of the urine for that alkaloid gave a negative result.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

The following is a list of office-bearers of the Association duly elected on Wednesday, February 15. An asterisk is prefixed to the names of those not holding a similar office in the preceding year:—*President*: Samuel Cartwright. *Vice-Presidents*: J. A. Baker; *Thomas Edgelow; Francis Brodie Imlach; S. James A. Salter, F.R.S.; John Smith, M.D., F.R.S. Edin. *Treasurer*: S. Hamilton Cartwright. *Hon. Secretary*: J. Hamilton Craigie. *Council*: Edward Bartlett; *T. W. W. Fay, Liverpool; F. Fox; *Peter Orphoot, M.D., Edinburgh; W. G. Ranger; Augustus Winterbottom.

THE METROPOLITAN WATER-SUPPLY FOR DECEMBER LAST.

The report of the Metropolitan Water Examiners for the month of December last shows a falling-off in the quality of the supply issued to consumers during that period. Of course it has to be remembered that the sources whence the companies derived their original supplies were considerably affected by the weather. Thus, in dealing with the condition of the water previous to filtration, Lieutenant-Colonel Bolton remarks that the water in the Thames at Hampton, Molesey, and Sunbury, and also that in the river Lea, was in a very bad condition during the whole of the month. Dr. Frankland reports that the Thames water sent out by the West Middlesex and Southwark Companies was much polluted with organic matter; whilst that distributed by the Grand Junction and Lambeth Companies, though less so, was of worse quality than any supplied by them since March last. With the exception of the West Middlesex and Grand Junction Companies' waters, which were slightly turbid, the filtration previous to delivery was efficient. The Grand Junction Company's water contained moving organisms. The Lambeth Company's water was one-fourth softer, and contained a much smaller proportion of nitrogen as nitrates than the other samples. The water drawn from the Lea by the New River and East London Companies, although better than the average Thames waters, was, with the exception of that sent out by the East London Company in October last, inferior to any supplied from the same source since March last. The

waters of both companies were efficiently filtered before delivery. It is again suggested that the question of a practical "standard of quality" (including both the organic and inorganic matter contained in water) should be considered and determined by the highest authorities connected with the medical and chemical professions, and when such standard is adopted by the authorities, it would then become the duty of engineers connected with the water companies to work up to such standard, and the sources of supply of water to the metropolis could be regulated thereby.

DEATH OF PROFESSOR DECAISNE.

THE Muséum d'Histoire Naturelle and Académie des Sciences of Paris have recently sustained a great loss in the death of Joseph Decaisne, the *doyen* of French botanists. Born at Brussels in 1807, he is an example of what persevering industry united with intelligence may do, for, entering the Museum as a gardener-lad at the age of eighteen, and working during the day, he took from his nights the time necessary for his instruction. Coming under the notice of Adrian de Jussieu, he was soon made *aide-naturalist* to the chair of Rural Botany. He was still in this secondary position when his important works opened to him the door of the Académie des Sciences in 1847. In 1851 he succeeded M. Mirbel in the chair of Culture. He introduced several important plants, and is the author of some distinguished works.

VACCINATION IN THE PARISH OF ST. MATTHEW, BETHNAL-GREEN.

THE Medical Officer of Health for the parish of St. Matthew, Bethnal-green, Dr. G. P. Bate, in his annual report for the year 1880, while commenting upon the number of deaths which occurred in his district from small-pox, asserts that undoubtedly much of the so-called vaccination in this country, although certified as successful, is really so imperfect as to confer very little protection against small-pox, and it is this which brings upon it so much discredit. The whole machinery of vaccination, Dr. Bate thinks, requires searching investigation, and ruthless exposure where necessary. He repeats a suggestion made by him two years ago, that the inspection of vaccination, and certification of its efficiency, should be entrusted to some one other than the vaccinator himself. The public vaccinator of one district might be made viewer or inspector of the cases in the next district, and *vice versa*, somewhat after the manner in which, in large houses of business, one assistant checks and countersigns the bill of his colleague. Although this would be productive of extra trouble and expense, Dr. Bate thinks the result would abundantly justify it; for no business man would think of trusting a builder to certify as to the excellence of his own work, as the sole condition precedent to his receiving payment for the completion of his contract. Further, the certificate in each case should show the number and size of the resulting cicatrices, and any child imperfectly vaccinated should be compelled to undergo the operation again after the lapse of two or three years, instead of waiting for adolescence. According to recent returns, little more than 6 per cent. of the children in St. Matthew's parish escape successful vaccination; and yet it appears from a report based upon a house-to-house visitation made by four assistants to the vaccination officer, by order of the Guardians, that out of a total of 6018 children under fourteen, respecting whom inquiries had been made, no less than 828, or 13.8 per cent., were unvaccinated. Such a failure, Dr. Bate adds, calls for explanation, and throws some light on the causation of the small-pox epidemic.

LONDON SANITARY PROTECTION ASSOCIATION.

THE first annual general meeting of the Association will be held in the Large Room of the Society of Arts, John-street, Adelphi, on Saturday, February 25, at 4 p.m., to receive and pass the report of the Council and the Treasurer's balance-sheet and report for 1881, and to elect a President, Vice-Presidents, Treasurer, and members of Council for 1882. Professor Huxley and Professor Fleeming Jenkin will address the meeting on the progress of the Association; also Dr. Acland (of Oxford), Dr. Andrew Clark, Dr. Lauder Brunton, Mr. Timothy Holmes, Mr. Knowsley Thornton, the Hon. and Rev. Mr. Fremantle, Sir W. Tyrone Power, and others.

VITAL STATISTICS OF KENSINGTON FOR THE YEAR 1881.

IN presenting his monthly report on the health of the Kensington district for December last, Dr. T. Orme Dudfield, the Medical Officer of Health for that locality, has appended to it, in anticipation of the more detailed report which in due course will follow, a brief *resumé* of the vital statistics of the year for that portion of the metropolis. It is noteworthy, he remarks, that 1881 is the first year during his official connexion with the parish that he has not had to estimate an increase of population from immigration. The births of 4400 children were registered during the past twelve months, as against 4605 in 1880, and it is necessary to go back to the year 1874 for so small a number of births as were registered in 1881. The birth-rate was 26.9 per 1000, or 4.1 per 1000 below the decennial average; this is considerably below the birth-rate of the metropolis, which was 35.0 per 1000. The deaths registered were fewer by 158 than in 1880, and some 200 below the corrected decennial average; the number was 2726, giving a death-rate for the whole parish of 16.6 per 1000 persons living, the lowest on record. The deaths of young children, which always bear a high ratio to the total mortality, were 1067, or 162 fewer than in 1880—equal to 39.2 per cent. on total deaths, and to 24.2 per cent. on registered births. Under one year of age there were 644 deaths, or 77 less than in 1880. The deaths from the principal diseases of the zymotic class, which in 1880 were 469, or 22 below the corrected decennial average, were only 383 last year, or 36 below the uncorrected, and 92 below the corrected decennial average (475): these deaths were equal to 14 per cent. on total deaths, and to a rate of 2.3 per 1000 persons living. In the case of only one of the zymotic diseases, viz., small-pox, did the mortality come up to the decennial average. The deaths "not certified" by duly registered medical practitioners were 28 during the year, or less than 1 per cent. on total deaths. Few of the deceased had been attended by unqualified male practitioners; the majority were infants, whose deaths were registered on the information of midwives.

MEDICAL PARLIAMENTARY AFFAIRS.

Rivers Conservancy and Floods Prevention.—In the House of Commons, Mr. Dodson moved the second reading of this Bill. Sir W. Barttelot alluded to the difficulty of defining a river basin, and thought the proposals in the Bill were not clear on this point. Certain powers were given to commissioners of sewers. The Bill unfortunately provided for such authorities to be superseded, instead of extending their authority to other parts of the country, where much good work might be done. Mr. Whitley proposed to except waterworks from the operation of the Bill. Other members objected to the Bill taking precedence of the County Government Bill, as some of the provisions should be made dependent upon the requirements of county government. The Bill was read a second time by a large majority.

Army Hospital Corps.—Mr. Childers, in reply to Colonel Alexander, declined to make any change in the new regulations for promotion and pay of apothecaries in the Army Hospital Corps.

MIDDLE-CLASS HOSPITALS.

THE following letter relating to the extension of the Home Hospitals movement is now being issued by the Managing Committee of the Association:—

"When it was resolved, at a public meeting held at the Mansion House in June, 1877, to take effective measures, by the aid of an association on a proprietary basis, to provide a hospital for paying patients, an appeal was made to the public for £10,000 capital to meet the first outlay. A liberal response was made, and a Home Hospital for such patients having since been successfully established at Fitzroy House, Fitzroy-square; and, after a full year's experience, shown to be, not only necessary to meet a great want of the middle-classes, but to be more than self-supporting, the first and principal object of the movement has been attained.

"The freehold premises acquired in Fitzroy-square, however, are found to be inadequate to the increasing demands for accommodation, and would, with the addition of the adjoining house, afford the larger space required, and enable the Committee to reserve one house for each sex, and thus to add greatly to the comfort and well-being of both. Thanks to the Treasurer, Mr. Frederick Cox, and to Mr. Henry C. Burdett, the Honorary Secretary, the promise of a lease, with option to purchase the freehold of these adjoining premises at a fixed sum within a year's date, has been secured. It only remains to find the required funds, estimated at £5000, to insure the full realisation of all the benefits originally contemplated, with a surplus income to form either a reserve for extending the movement, or a sinking fund for the gradual repayment of the capital advanced.

"It has been suggested that this further sum might be raised by means of a limited company on a co-operative principle, and a transfer of the capital now existing on payment of an annual dividend. But any arrangement of this nature, though likely to provide the required funds, is so little in accordance with the feelings and intentions of the governors who liberally contributed the first capital sum, that it has been unanimously resolved to trust to the continued existence of this philanthropic feeling in the public mind, and to make a renewed appeal for the smaller sum now required for the complete development of the original plan. The Committee feel that they may confidently appeal to the already numerous class of paying patients who have been inmates of the Home Hospital, and who have had ample experience of the advantages of the institution and the benefits it confers. They can bear testimony to its value, and cannot fail to feel a personal interest in promoting, among their friends and connexions, contributions in aid of this extension and improvement of the accommodation at the Home Hospital.

"I am, your obedient servant,

"(Signed) NORTHUMBERLAND.

"The Home Hospitals Association (for Paying Patients),
Fitzroy House, Fitzroy-square, London, W."

FEMALE PHYSICIANS ABROAD.—It has been stated that there are now nearly 400 female physicians in practice in the United States. They are to be found in twenty-six of the States of the Union; but the majority of them are practising in New York, Massachusetts, and Pennsylvania. In Russia twelve women-doctors are officially engaged in teaching medicine to female students. Several are in the service of the Zemstvos, and some forty are engaged in hospitals. It is also reported that twenty-five qualified female practitioners who served in the military operations of 1877 have, by order of the Emperor, been decorated with the Order of St. Stanislas of the Third Class.

ANOTHER DEATH OF A PARIS INTERNE FROM DIPHTHERIA.—Dr. Cossy, *chef de clinique* in Prof. Parrot's service at the Enfants-Assistés, has just died of diphtheria which he contracted in the wards of that hospital. A Swiss by birth, thirty-three years of age, he had become naturalised in France, and had entered upon what promised to be a distinguished career, when he was suddenly carried off by diphtheria. Only six months since, M. de Boyer, another *chef de clinique* of the same service, died of the same disease; and deaths among hospital medical men from this cause have of late years been terribly numerous.

FROM ABROAD.

THE OPHTHALMOSCOPE IN DISEASES OF THE EAR.

DR. CALMETTES, in the *Progrès Médical* (January 21), observes that, while the ophthalmoscope allows of our exploring the fundus of the eye, the internal ear has remained hidden in its bony case, the diagnosis of its lesions having been obtainable only by indirect means or by elimination. Nothing seems to promise that these purely anatomical conditions can be changed, and any exact idea of the condition of the inner ear has to be gained by indirect measures. For some time past, Knapp, Moos, Kipp, and Allbutt have sought to ascertain the condition of the auditory nerve by that of the optic, but the results of ophthalmoscopic examination have thus far not found a regular place in treatises on diseases of the ear. He therefore is desirous of drawing attention to some important observations on the subject made in a communication to the Prague Medical Society by Prof. Zaufall.

In cases of nervous deafness, a form of frequent occurrence in young women, and in which noises in the ear predominate, with loss of osseous perception and a negative condition of the apparatus of transmission, it is of great consequence to know to what immediate cause the functional disturbance is due; and the condition of the retina will indicate to us that of the cochlea, especially as regards the circulation. It is the same with respect to sudden deafnesses of a syphilitic origin, in which rapid exudation takes place into the internal ear; and also in cerebral traumatism followed by deafness, etc. When the disturbances do not derive their origin from the external or middle ear, it is very often difficult to determine whether the lesion has its seat in the internal ear, the nerve, or the auditory centres; but ophthalmoscopic examination allowing certain encephalic lesions to be demonstrated, we are often able to determine whether the cause of such disturbances is central, peripheric, or mixed. In affection of the cavity of the tympanum, also, such examination should be practised, at whatever stage it may have arrived; for, even in absence of all symptoms, propagation to the nervous centres may have already taken place. This is true of acute or chronic suppurating otitis of the middle ear, and there are examples also of simple chronic or acute catarrh leading to intracranial complications. By revealing to us meningitis and thromboses from the period of their appearance, the ophthalmoscope enables us to fix the indications for the use of the trephine. The lesions of the fundus increasing or diminishing with those of the meninges, the progress of the meningeal lesions are revealed by that of the lesions of the retina; and it is also by the condition of the retina that we are enabled to judge of the amelioration of the encephalic lesions due to trephining. When the inflammation of the tympanum is propagated to the meninges, the ophthalmoscopic lesions appear first in the corresponding eye, but still they are present in both eyes, and are sometimes more marked in the opposite eye. So, too, after trephining it is in the corresponding eye that amelioration is first produced, but it also is manifested in the opposite eye. A remarkable circumstance is that in all the cases studied by Zaufall in which a suppurating middle-otitis, with or without caries, had produced meningitis and thromboses, very marked lesions were constantly found in the fundus of the eye, contrary to what takes place in the other forms of meningitis, chiefly cerebro-spinal meningitis.

One of Zaufall's cases is given in proof of the utility of his means of exploration, by which it is hoped that before long the affections of the internal ear will become completely differentiated from each other, and studied and treated in a scientific manner. A strong youth of sixteen became the subject of suppurative otitis of the left middle ear, with perforation of the membrana tympani and cervical adenitis. It did not prove amenable to treatment, and for some time past the general condition had become bad, there being anorexia and fever at night. On going downstairs, the lad suffered from vertigo, and irrigation of the ear began to produce giddiness. Nothing was observable at the mastoid process, but percussion there produced vertigo. The ophthalmoscope showed the fundus of the eye to be of a dull red, the redness increasing towards the papilla, the internal

side of which was covered by it. The arteries were normal, but the veins were very dilated and sinuous. The papillæ were ill defined, and of a sombre red at the inner side; and on the right papilla, near the point of issue of the central vessels, was hæmorrhage covering all its central part. The diagnosis was venous hyperæmia propagated to the meninges, and trephining was performed. Next day, vertigo was no longer produced by irrigation or percussion, the patient feeling well, the fever disappearing, and the appetite returning. On the fourth day the internal part of the papilla was still very red, but the veins were much more contracted, and the fundus was much paler, the hæmorrhage also being of less extent, and its boundaries indistinct. On the eighth day there was a sudden elevation of the temperature to 41° C.; but as the ophthalmoscope did not indicate any changes, all idea of a new intracranial lesion was given up. It proved to be a temporary complication of septic fever, which disappeared, and the cure was complete.

TIMIDITY IN THE USE OF NITRITE OF AMYL.

In relation to General Burnside's death from angina pectoris, the editor of the *Boston Medical Journal* (December 22) calls attention to the too general timidity in the use of the nitrite of amyl in this disease. Danger is erroneously supposed to attend its use simply from its sudden, often somewhat startling, effects. Its good effects are indeed instantaneous, and why any fear should be entertained as to its use is a mystery, as there are no authenticated cases in which it has done harm.

"Indeed, in a selected case, when the physician has fairly assured himself of the dose required, he may safely leave it in the hands of the patient—of course, with proper instructions. It may alarm the patient if he has not been prepared for its almost electrical effects. We have seen such cases. It does frequently create a headache, but if the patient has been prepared for the rush of hot blood to the skin, and for the rapid increase of the cardiac pulsations, no mental disturbance will take place. As for the headache, which arises only occasionally, it is of no consequence in view of the relief we are giving the patient. But angina pectoris is not the only complaint in which the nitrite is a valuable aid. In the chill stage of malaria, the symptoms being extreme, we have checked the chill in forty seconds, the drug relaxing the spasm of the cutaneous vessels, and admitting warmth to the surface of the body. The febrile stage was correspondingly shortened. In the chill which often attends dysmenorrhœa we have heard it pronounced a 'perfect blessing.' In asthma—not always in old subjects, in whom it is apt to fail, but in cases under fifty years of age—it will clear up râles which can be heard twelve inches from the chest, within five minutes, and often they do not return. It will arrest spasms of the diaphragm. In all these cases, especially in angina pectoris, we have found it not only invaluable, but harmless. It is the remedy of all remedies for chloroform syncope. In partial drowning—indeed, in any case of cardiac failure—it is the whip of whips for the flagging heart. In the convulsions of strychnia-poisoning, in tetanus, in the early stages of epilepsy, in short, in spasm of any nature, this drug is capable of accomplishing great good. If physicians would but use it in appropriate cases, they would soon see that it can be easily controlled, and moreover that it can be used with impunity. It is necessary only to watch the pulse and the face, and as soon as the former reaches 130, or when the nasal flush appears, stop the inhalation. It sometimes happens that the nasal flush does not at once show itself. In such an event the pulse is a reliable guide. When used even with ordinary care the drug never causes insensibility. As to the dose, two drops would be the quantity for an adult as a beginning. If this should prove ineffectual, it should be increased boldly, especially as the specimen used may have lost strength. The drug may flush the face, and yet not relieve the pain. This is an indication of its weakness. A fresh, strong specimen would flush the face and relieve the pain as well. It is impossible to keep the drug on hand, and expect it to do its legitimate work, unless it be sealed with the greatest care. It would be better to procure a fresh specimen for each case. Again, the remedy fails because the quantity inhaled is insufficient. Each patient is his own law in regard to the dose necessary to relieve his particular case. A drachm has frequently

been administered without harmful effects. But it should be borne in mind that some individuals are more easily affected than others by equal doses. At the outset, therefore, the dose should be small, and increased until the desired result has been reached. A convenient form of administration is a pledget of cotton-wool, upon which the liquid may be dropped. It may then be held between the patient's teeth until the characteristic effects appear."

Quoting Dr. Balfour's statement that "this remedy is perfectly safe, and may be entrusted to the patient with the certainty that he will not injure himself by its use," the writer says:—"This is the course we have followed for some years, and in no instance has there ever been cause to regret it. Indeed, there are cases which can be managed in no other way. As an example we may mention a gentleman who for many years had suffered *daily* attacks of angina pectoris. In this case we advised that the patient should procure a small tin box (salve or percussion-cap box), fill it with cotton-wool, moisten the wool with the drug before leaving his house, and that if pain came on he should inhale from the box. He was directed to follow the same course in case of attacks at home. A short trial of this plan proved its efficacy. In any case of frequently recurring attacks of this disease the remedy should be kept in the house, or be procured at once when need is, and administered by one of the family while waiting for the physician. Valuable lives might thus be saved. We sincerely hope that these facts may influence physicians in favour of the nitrite of amyl. At present it is a neglected drug."

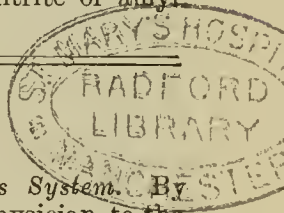
REVIEWS.

A Treatise on the Diseases of the Nervous System. By JAMES ROSS, M.D., M.R.C.P., Assistant-Physician to the Manchester Royal Infirmary, Consulting Physician to the Manchester Southern Hospital. Illustrated with lithographs, photographs, and 280 woodcuts. London: J. and A. Churchill. Vol. I., pp. 594; Vol. II., pp. 998.

WE may as well say at once that anything like a careful and exhaustive criticism of such a work as that whose title is given above is impossible, as far as we are concerned. It would take weeks or months of hard work to accomplish. It would occupy almost as much space as the 1500 pages of the two volumes themselves, and after all would in many places be utterly unintelligible without the aid of illustrations, which are amply provided in the work itself. Our efforts must be therefore confined to the accomplishment of a much less ambitious task.

The first thing that strikes one on opening these volumes is, so to speak, the newness of their style, not in a literary sense, but as regards the mode in which the subjects are handled. We have been so long accustomed, in treatises on diseases of the nervous system, to have one beaten path trodden, that it almost seems strange to find you are on a new one. Thus, in the older books we were accustomed to a bill of fare, including apoplexy, softening, convulsions, and the like, as far as the brain was concerned; and when the spinal cord was handled, we hardly ever found more than a few scanty disquisitions about certain forms of paralysis, tetanus, and a few other maladies commonly referred to a spinal origin. Now we have such things as *æsthesio-neuroses*, *kinesio-neuroses*, and *tropho-neuroses*, *polio-myelopathies*, *leuco-myelopathies*, and others of still more fearful designation; whilst our old friends are shrunken into but scanty proportions, that useful one, apoplexy, having almost disappeared.

As to the conception of the book itself, if it errs at all, it errs on the side of completeness. It is a question whether we are as yet in a position to deal comprehensively, and at the same time satisfactorily, with such a vast range of subjects as may be comprehended under the title of "*Diseases of the Nervous System*." For if we consider the intimate relationship of nerve-influence with all the varied functions, to say nothing of structures, of the body, any attempt to give a complete account of diseases of the nervous system in this wide sense must be evidently a work almost superhuman, and one which cannot in the meantime be taken in hand by one man, without borrowing the greater part even of his clinical material from other observers. What, however, Dr. Ross has undertaken to do he has striven to accomplish



in a manner which must be satisfactory to all as well as to himself, and where he has failed is where anything but failure was impossible. The work is an earnest attempt in a right direction, but whether it would not have been more successful had the aim not been so high we should not like to decide. And there are other points as regards which our mind is in dubiety, especially the introduction of what is neither more nor less than a complete treatise on the more minute anatomy of the nervous system, where the whole subject is fully discussed and illustrated both in its scientific and practical bearings. Whether it was wise to add such a mass of material to such a treatise we shall not judge. But there can be no doubt of the value of this anatomical portion: carefully collated as it is from all available sources, and confirmed by private research, it meets a want which has been long felt, by some very grievously.

The illustrations, too, are of the utmost value; but all this only renders it the more doubtful, to our mind, whether it would not have been better to collect the whole of this information into one volume, and to give the reader the choice of purchasing it separately, rather than to mix up subjects which are, properly speaking, of scientific value only, with those more strictly practical. This, however, is matter of opinion; and in certain respects convenience is suited by the mode adopted for dealing with the two sets of subjects.

If there is one fault to find where there is little room for fault-finding, it is the scarcity of exact references: in many places they are given, and in many they are omitted, or only the name of the authority retained. But it would have been easy for the author to have supplied us with some means of getting at these authorities for ourselves. We should not have been too particular had even the names of the treatises or articles been given, but we think we have reason to complain, on behalf of the workers at this special subject, to whom the work cannot fail to become a text-book for reference, that the bibliography is so scanty—nay, for the matter of that, so misleading—as to be almost useless. But, in conclusion, we must repeat that we are in no position to sit down and write an exhaustive review of such a book; we can only indicate what we think of the work as a whole—an opinion which is not founded on a patchy piece of work, picking out a passage here and there, and skipping the rest, but on a careful general analysis of the two volumes of which it is composed. And we are well assured that anyone adopting the same method of procedure will agree with us, that the book is unique of its kind, a perfect fountain of knowledge, sound and reliable.

What to Do in case of Poisoning. By WILLIAM MURRELL, M.D., M.R.C.P., Lecturer on Materia Medica and Therapeutics at the Westminster Hospital, Assistant-Physician to the Royal Hospital for Diseases of the Chest. London: H. K. Lewis, Gower-street.

DR. MURRELL'S object in producing this little booklet is to provide the practitioner with plain, straightforward directions for the treatment of common cases of poisoning; and he has succeeded admirably well. It consists of a series of clear, accurate, and eminently practical directions for the management and treatment of cases of poisoning by all the poisons at all likely to be employed or obtainable. First, the "antidote bag" is mentioned, and its requisite contents are set forth; next, directions are given for the employment of the stomach-pump, and for the preparation of the emetics commonly employed; and then follow the tables of treatment. These tables were originally drawn up by Dr. Murrell for his own guidance; but feeling that, as he very truly says, "nothing can be more painful than to be called in to a case of poisoning and not know what to do," he has published them for the use of others. And he has done well. His antidote pocket-book, as it might be called, is a most handy, complete, and useful little book.

Outlines of Naval Hygiene. By JOHN D. MACDONALD, M.D., F.R.S. Smith, Elder, and Co. 1881. 8vo. Pp. 364.

From the very different conditions of the services, the hygiene of the Navy is far more limited in its scope than that of the Army. The sanitary duties of the military medical officer in time of peace differ little from those of the Civil medical officer of health; but when on active service, and to a certain extent in all foreign service, the

Army surgeon is a pioneer, and must possess the utmost fertility of resources. The Naval surgeon, on the other hand, carries his surroundings with him, or rather is carried by them, subject to no variations beyond those incident to frequent change of climate, and the difficulty of obtaining fresh and varied diet for those under his care. In fact, beyond the matter of ventilation, the questions to which his attention is directed are almost solely those comprised in personal hygiene. But the conditions of life on board ship are so peculiar that the application of the simplest rules of hygiene becomes a matter of extreme difficulty. On land habitations may generally be constructed with a view to the health of the occupants; but in shipbuilding, considerations of navigation, burden, offence and defence, must be paramount, and the welfare of the sailor has been too often entirely overlooked, especially as regards cubic space and ventilation.

In the literature, if not in the practice, of naval hygiene the French and Americans have hitherto taken the lead of us, and the present work will be welcomed by medical officers alike of the Navy and the Mercantile Marine.

The first chapter describes the construction of the hulls of wooden and iron ships of the principal types, and is introductory to the discussion of the best means of ventilating the lower decks, and of obviating the ill effects of damp, and of emanations from the bilge-water. This question is treated theoretically and historically; the various forms of up- and down-cast shafts and other special apparatus for artificial ventilation are described and illustrated both by excellent woodcuts and by reference to existing ships in the Royal Navy. Among many useful suggestions in this chapter we may notice the proposal to utilise the waste heat of the engines for ventilation, the adoption of impervious flooring for the lower decks, with daily use of moist wiping instead of the constant washing of the boards so productive of catarrhs and rheumatism, and especially the recommendation of Dr. Ekland, of Stockholm, that the bilge, which is to the ship what the surface drain is to the house, should be large enough to admit a man, lined with glazed tiles or other impervious material, with curved bottom, and inclined at each end toward a reservoir, ventilated and from time to time purified by waste steam and disinfectants. The almost insuperable difficulties in the way of ventilation of the sleeping quarters of the men may be imagined when we learn that in some of the best of H.M.'s vessels the cubic space does not exceed 133 cubic feet per head, or little more than half the Government allowance for paupers in work-houses and common lodging-houses.

The next chapter treats of the modes of obtaining and storing water. Dr. Normandy's apparatus for distilling fresh water from salt, and at the same time aerating the distillate, is fully described. Distillation, however, as the author remarks, fails entirely to remove the organic matters, so that further filtration through some form of carbon is still needed. He very properly prefers Bischoff's spongy iron, though he speaks favourably of Major Crease's carferal filter, as used in both services. He makes the interesting observation (which we do not remember having seen in any similar work) that on shores not far removed from mountain ranges or higher lands the fresh subsoil water (ground water) may be found within a few feet of the beach, whereas, on flat shores, as in Western Australia, where there are no hills for 300 miles inland, the search for water is well-nigh useless. An amusing historical incident mentioned in connexion with the neglect of personal cleanliness by seamen generally, viz., that soap was provided for the first time in 1796 at the suggestion of Sir Gilbert Blane, makes one wonder that disease was not even more prevalent in the Navy in the "good old times." The gradual improvement in the dietary of our seamen from 1720 to the present time is traced and illustrated by tables, the diminution in the daily ration of rum from half a pint to one-eighth being not the least in importance; and there are some useful suggestions as to changes in diet and clothing in tropical climates. The directions for the chemical and microscopical examination of water and food are borrowed from the great work of Drs. Parkes and De Chaumont.

The hospital-ship *Victor Emmanuel*—probably the only good one of its kind—is described in detail, and ample instructions for the internal economy of men-of-war, passenger steamers, the coasting trade, etc., complete the original portion of the work. These are followed by an appendix of

official orders and memoranda of all kinds, including instructions on the duties of captains and medical officers; and, as an example for imitation here, the United States Passenger Act is given at length. The work, as will be seen, is mainly a compilation, and leaves several questions of the highest practical importance unsolved; but, in the absence of such a guide as the sister service has in "Parkes' Hygiene," it will be found of great value by naval and ships' surgeons in general.

GENERAL CORRESPONDENCE.

"GREAT DAVID'S GREATER SON."

[To the Editor of the Medical Times and Gazette.]

SIR,—Referring to your review of my little book, will you allow me to remark that the reviewer seems altogether to have mistaken the line of argument which I had adopted in my endeavour to prove that there is no evidence, either from Scripture or from the records of the contemporary historians, that Jesus of Nazareth engaged in any other occupation than that which He announced from the first to be the supreme purpose of his life, viz., "my Father's business." The physiological argument I especially hoped to see criticised by your reviewer.

Even though the omission of the word "not" may be merely a printer's error, when you say that I purposed "to show . . . that Jesus of Nazareth's continuous occupation . . . was that of a carpenter," it would be necessary to omit the word "continuous."

As regards Joseph's occupation, that is not in dispute, and so I did not prolong the arguments or give my authority. A village master-builder and a village carpenter is perhaps a distinction without a difference. No one, I suppose, would object to a picture of a carpenter's shop facing a title-page, "The Life of Joseph." I am, &c.,

CHRISTOPHIL.

[By an unfortunately overlooked printer's error in the review of this work last week, the word "not" was omitted in line five, which should have run, "previous to the age of thirty years was not that of a carpenter."—ED. *Med. Times and Gaz.*]

REMOVAL OF FOREIGN BODIES FROM THE EAR.

LETTER FROM MR. E. LOWDELL.

[To the Editor of the Medical Times and Gazette.]

SIR,—I know not whether cases of impaction of foreign bodies in the meatus auditorius externus may be frequent, but, as regards myself, though having attended various hospitals in this and other countries, as also dispensaries, I never met with but one, which was that of a lad about fifteen years of age, who came to me for the removal of a full-sized seed of *Phaseolus coccineus* (scarlet-runner bean), which had been in his auditory passage for several years, and the extraction of which had been unsuccessfully attempted by other practitioners by means of instruments.

Guided by the authority of the late Mr. Samuel Cooper, who attained the rank of President of the English College of Surgeons, and whose work on Surgery ("First Lines") was held in high esteem in my student-days, I at once made use of a small syringe (capable of containing probably about half an ounce of liquid) and some warm water. After two or three injections the bean floated gently out with the returning stream. The operation caused no apparent discomfort to the patient at the time, nor subsequent inconvenience. The power of hearing, which had been in abeyance in the obstructed ear, was immediately restored, and in a few days, after a small quantity of olive oil had been introduced to soften the long-retained and hardened cerumen, became as good as that of the one in which no foreign body had been lodged.

Under these circumstances, I was surprised to read, in the *Medical Times and Gazette* of January 28, 1882, the statement made by Professor St. John Roosa, that "authorities on aural diseases" declare that those who use the syringe are clumsy and bunglers.

I cannot conceive in what the objection to it consists, but can easily understand why the Professor refuses to be convinced by such writers, and regards their preference for the employment of instruments as "dangerous teaching."

Possibly, by the insertion of these few lines in your *Gazette*, further attention may be drawn to, and light thrown on, the subject.

Upper Norwood, S.E.

I am, &c.,

EDWIN LOWDELL.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 10.

JOSEPH LISTER, D.C.L., F.R.C.S., F.R.S., President,
in the Chair.

CASE IN WHICH SUPPRESSION OF URINE WAS THREATENED SEVERAL TIMES AFTER OVARIOTOMY.

MR. KNOWSLEY THORNTON brought forward a case in which suppression of the urine was threatened several times after ovariectomy. On each occasion packing the arms in cold wet towels relieved the symptoms, and the patient made a good recovery, and has remained in perfect health since. The following is a brief outline of the case:—J. W., aged thirty-nine, married, and the mother of two living children, the youngest aged seven and a half, was admitted into the Samaritan Hospital in October, 1880. History: Never strong. During the last seven years has had three stillborn children and two miscarriages. Since the last miscarriage has had irregular and too frequent menstruation. Abdominal tumour first noticed early in last pregnancy, September, 1879. A few weeks before admission, Dr. Pierce, of Denbigh, tapped the tumour, and removed twenty-four pints of greenish fluid. Condition on admission: Looks older than her age, and has a waxy skin. Kidneys act badly, and skin is dry and harsh. No albuminuria. Ovariectomy performed November 4, 1880, and tumour of right ovary removed, weighing, with contents, twenty-eight pounds. Operation of average difficulty; a good deal of sponging necessary; occupied an hour. Temperature and pulse rose rather rapidly, and on the day after the operation the urine was scanty and dark, and the kidneys were very irritable. Digitalis and citrate of potash were given, and next day the urine was free and loaded with lithates. On the fourth day the kidney irritability returned, and the temperature and pulse rose again. Sympathetic vomiting came on, and on the sixth day, the condition appearing critical, the arms were bared and packed in cold wet towels, which were kept wet with iced water. In twelve hours all bad symptoms had disappeared. The towels were allowed to dry, and in five hours the patient was as ill as ever. The towels were wetted again, and were kept on for forty-eight hours, during which time the patient appeared quite well, and the wound was dressed for the first time, and found soundly healed, and all the sutures were removed. The towels were removed; but during the day the kidney symptoms and sickness gradually returned, and they were reapplied. Temperature and pulse remained unaffected, but the kidney symptoms at once yielded. On the eleventh day they were again removed; and on the twelfth, the temperature being normal, the patient was allowed to get up. A few days later she went home, and Dr. Pierce writes that she is now in better health than she has enjoyed for some years. *Remarks:* Mr. Doran has shown by his post-mortem observations that advanced granular disease of the kidneys is common with large abdominal tumours, and we know that this condition frequently exists without any clinical evidence of its presence. In the present case no albumen was detected, and though the kidneys acted badly before the operation they were equal to the excretion of a fair quantity of urine loaded with lithates on the second day after operation. The symptoms detailed at length in the paper were clearly due to the kidney condition, and the application of cold wet pack to the arms on three separate occasions acted like a charm. To what is this rapid action to be ascribed? The author discusses the method of applying dry and wet cold, not only to reduce temperature, but to relieve serious internal congestions. In the latter class of cases he believes the action to be a reflex one through the nervous system,

and not a mere cooling of the blood generally. He refers to the action of external chill in producing internal inflammations, and to the well-known action of counter-irritants. While believing that ordinary cases may be explained by one or other of the theories mentioned, he is still at a loss to explain the rapid action on the kidneys in this case from such a very restricted pack. The repetition of the treatment, and its unfailing effect on three separate occasions, and especially on the last, when the pulse and temperature remained unaffected, make it clearly a case of demonstrated therapeutic action—not a mere coincidence.

The PRESIDENT said that in the case just narrated the same effects had been produced time after time. Had this not been so, it might have been said that the coincidence was accidental. Besides, Mr. Thornton had found the ice-cap of use in other cases, and this could hardly be due to a general cooling of the blood, or even of the brain itself, by the local application. It might, however, be brought about by the local influence of the ice-cap on the capillaries, in turn affecting the centres, and so ultimately the kidneys. He had shown that raising the arms produced not only an emptying of the veins, but a contraction of the arteries; and raising the hands was often useful in arresting epistaxis. So, too, in the same way, raising the feet was sometimes useful in disease of the pelvic viscera; in one case he had known it allay pain in the testicle, even though the action would seem to favour the accumulation of blood there.

Dr. C. T. WILLIAMS had tried the ice-bag to the head in some cases of pneumonia and some acute tubercular attacks. He had usually found it fail when there was much local change, but it seemed to do good when the pyrexia was of a more general character.

In reply to Dr. Wiltshire, Mr. THORNTON said the operation had been done antiseptically. He had found the ice-bag of most service when the congestion was local.

NOTES OF A CASE OF ERYTHEMA IRIS.

Mr. BALMANNO SQUIRE read notes of a case of erythema iris (exhibited at the last meeting). A woman, aged twenty-eight, presented a copiously sprinkled eruption limited to the palms of her hands and fingers, and the backs of the ends of her fingers. The eruption had lasted a month. Within the last two years she had had two previous attacks, each lasting three weeks. Each spot of the eruption consisted of a circumferential, definitely raised, faintly pink ring, enclosing a disc-shaped, flat, unraised, dark-coloured, brown-crimson, abruptly limited stain, disappearing completely for the moment on pressure, the centre of the dark crimson stain being faded, and of a pale buff-yellow hue. The average diameter of the spots, including ring, was eight millimetres. The eruption was attended with a sensation of itching, and occasionally of burning. There was also considerable tenderness of the affected skin, so as to preclude any use of the hands. There was no desquamation, nor was there any vesication, but, by the patient's account, the previous attacks had terminated in free desquamation.

CASE OF ANEURISM OF THE ASCENDING AORTA IN A WOMAN.

Dr. FINLAY showed a case of aneurism of the ascending aorta in a woman aged thirty-two. She complained only of shortness of breath on exertion, and a slight cough at times. She had no difficulty in swallowing, and the pupils were equal. An oval-shaped pulsating swelling, three inches by two and a half, and projecting about half an inch from the surface of the chest, appeared to the right of the sternum, and extended in an almost vertical direction from the lower border of the second to the lower border of the fourth costal cartilage. There was no discolouration of the skin, nor enlargement of cutaneous veins. Over the swelling there were a thrill and a loud double murmur, the diastolic part being loudest and longest. A double murmur was also heard at the heart's apex, which appeared in the fifth interspace in the nipple line. The murmurs were heard generally all over the chest, both back and front. They were also heard in both carotids, and there was visible pulsation of the vessels of the neck. Dull percussion was found over the tumour, shaded off for some distance beyond. Inspiration was wavy at the left apex in front, and expiration prolonged over the right upper scapular region. The appearance and action of the vocal cords were normal. There was no specific history;

the patient was married, but childless, and had had no miscarriages. She had a severe attack of rheumatic fever at the age of twenty, and thinks she strained herself some four years and a half ago while engaged in house-cleaning. A year later a continuous, dull, aching pain in the right side of the chest began to trouble her, and on examining the part she discovered pulsation and swelling. She was admitted to the Middlesex Hospital, and remained there from January 22 to July 7, 1879, being treated with gradually increased doses of iodide of potassium, confined strictly to the recumbent position, and dieted on the plan advocated by Mr. Tufnell. After nearly six months of this treatment she was discharged much relieved, being free from pain, and with diminished pulsation in the aneurism. There was, however, no evidence of consolidation. Since her discharge she had continued to attend the out-patient department. Comparing her condition on physical examination when in the hospital, with what it is now, the following differences appeared. At the former period the diastolic sound over the tumour was accompanied by a "thud," indicating the competent closure of the aortic valve; the situation of the apex beat was normal, and the heart's sounds there were unaccompanied by murmurs. Now the thud has disappeared, the apex beat is somewhat outside its normal position, and there is a murmur at the apex both with the systole and diastole. The pulsation in the tumour, too, feels more superficial now than it did then. From this comparison the sequence of events seemed to be, weakening of part of the wall of the aorta in connexion with the attack of rheumatic fever, and its giving way under the strain referred to; then the gradual dilatation of the aneurism leading to incompetence of the aortic valve, and this, in turn, to dilatation and hypertrophy of the left ventricle, with mitral incompetence. The question for consideration now, seeing that medical treatment had so far failed, was whether it would be proper to resort to operative procedure, and if so, what that procedure should be. Galvano-puncture might commend itself to some; the distal ligature, as exemplified in cases recorded by Dr. Cockle and Mr. Heath, Mr. Holmes and Mr. Barwell, to others. There seemed to be points in the case both in favour of and against operative interference. In the former category might be mentioned the youth, good general health, circumscribed appearance of the aneurism, and absence of pressure signs. On the other hand there were the nearness of the aneurism to the aortic orifice, and the aortic regurgitation, which would expose to the danger of portions of clot being washed back into the left ventricle, together with a greater risk than in cases where the valve was competent, of clots being detached and carried forward in the other direction. At the same time the regurgitation might be slight, judging from the small amount of dilatation and hypertrophy. Altogether the *pros* and *cons* seemed so equal that it was difficult to strike a balance in favour of either side; all the more so when it was considered that the patient was not unlikely to live for a considerable time in fair comfort without surgical treatment.

Dr. POWELL thought this aneurism a sacculated one. If it were of the globular kind an operation would be more risky. The relief already afforded showed that it was probably sacculated; but the layers of deposit had now melted down, and the aneurism was nearer the surface than before. If it was certain that the bruit with the second sound was not due to the aneurism, but to regurgitation, he would not operate; but he was not sure that this was the case here. The bruit did not exist when the patient was seen first; then there was a well-marked thud, and there was still some shock. The sound was, moreover, loudest above and to the right. The illness seemed to have dated from an attack of rheumatism, or soon after that, and he thought in many cases the walls of the aorta were weakened in that disease.

Dr. DE HAVILLAND HALL had only seen one case of galvano-puncture, that was under the charge of Dr. Hughes Bennett, and operation was had recourse to too late. That aneurism was in many ways similar to this; but the skin was reddened at the time of operation, and it soon after gave way. This was probably determined by the needle. If performed earlier the operation might have been successful.

Dr. LONGHURST thought that the great principle both of medical and surgical treatment in aneurism was rest. He did not think this a case for operation.

Dr. C. T. WILLIAMS mentioned a case similar to this, where rest was employed with great benefit. The main principle

was to avoid all strain. In his case the tumour became so greatly thickened that the man could strike himself with force upon it. But after going out the layers newly formed gradually disappeared, and he died. Nearly all aneurisms, however, opened elsewhere than on the skin if let alone.

Dr. GREEN thought the question of the condition of the aortic valves very important, as was that of the rheumatic origin of such cases. He had tried galvano-puncture in two cases: in one it did no good, in another there was slight improvement.

Mr. HOWARD MARSH referred to Mr. Stanley's well-known case, which ended in the spontaneous cure of an aneurism by rest. In one case of innominate aneurism where rest did no good, he tied two arteries, but there was an increase of the aneurism towards the left in consequence of it. In this case the patient died by rupture of the sac at the spot where the subclavian was tied. Many points were to be considered in determining on an operation. Still, many cases were wonderfully benefited by distal operation. He was not aware, however, that a single person so operated on was now alive. The longest-lived patient was in Mr. Heath's well-known case, where the woman lived four years. Still the operation was worthy of trial, especially with the new kind of ligatures which might be allowed to remain. Galvano-puncture usually failed.

Dr. FOWLER thought the bruit in Dr. Finlay's case partly aneurismal. He had made the post-mortem in Dr. Bennett's case. The clot found had been in part existent for some time, and in some parts it seemed charred as if by the needle, and it was here the aneurism gave way. He had only seen one case of abdominal aneurism treated on Tufnell's method. Here no laminar clot whatever was found.

Mr. PARKER said that galvano-puncture was considered to be unreliable, but it was a question whether the right kind of battery was commonly employed. He had found this in dealing with nævi. It was important to use the right kind of cell, and a galvanometer to determine the strength of the current passing.

Dr. POWELL, on looking at the pulse-tracing, said that it did not show aortic regurgitation. It was a case where this should be carefully examined into.

Mr. WALSHAM thought the case was good in one sense for operation, the patient being young and healthy, but the aortic regurgitation was against it.

Dr. SILVER said that the case operated on by Mr. Heath had at one time been under his care. She was most troublesome to manage, and when she got tired of the hospital, left, and was commonly soon found drunk in the streets. Had she taken more care she might have lived longer.

The PRESIDENT nominated Dr. Powell and Dr. Green to act as a committee and report on the case.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 14.

ANDREW WHYTE BARCLAY, M.D., President, in the Chair.

THE SURGICAL USES OF KANGAROO TENDONS.

MR. T. M. GIRDLESTONE read a paper on the surgical uses of kangaroo tendons. The author stated his belief that for tying large vessels in their continuity, the long, even tendons from the tail of the kangaroo were as strong as the silk ligature, and caused no ulceration in the coats of the vessel, and had all the valuable qualities of catgut without its defects. It also makes an excellent suture, resisting the effects of purulent discharges for a long period. They have been used in Melbourne in place of silk or gut since 1877, when they were first brought before the notice of the Medical Society of Victoria. In their use in the Melbourne Hospital in the deligation of main arteries, the inner coats of a vein could be divided or not, and the ends of the ligature cut short off. A reef-knot does not slip nor become loose. Where there is no suppuration the tendon coalesces with the tissues, and in suppurating wounds, though softened, they are found still to hold together at the end of eight days. The tendons were previously immersed for some weeks in carbolic oil, and entire tendons only were used. They have been employed

in ovariectomy and in vesico-vaginal fistula, and held till union took place. In plastic operations, hernia, and varicocele the tissues have readily healed over them. A medium-sized tendon is so strong that it is difficult to break it with the hands, and it is uniformly strong in its entire length of twelve to eighteen inches. They can be hardened for use as sutures by immersion in a half per cent. solution of chromic acid, after which they can be also used as drains for wounds. In their preparation they should not be removed from the tail *en masse*, but one at a time without force, as if split longitudinally they cannot be relied on, and should not be used. Every diameter that is required is attainable, so that there is no occasion for splitting; neither should two or more tendons be twisted together, as it destroys their flattened form. On removal from the recently killed animal they should be cleaned in water, and afterwards in a carbolic acid solution, and then dried, and can be so preserved, or in 5 per cent. carbolic oil, as most convenient, to be again steeped in a watery solution of carbolic acid before use. The tendons can easily be obtained.

Mr. THOMAS SMITH had used kangaroo tendons as sutures in cases of ruptured perineum, and other cases where superficial sutures were required, and had found that they were removed by absorption without causing any trouble. He had also tied large arteries with them in many cases; in one case only had the tendon broken during application. If they possessed any advantage it probably lay in their being natural structures demanding no special preparation, and in their being fitted to bear severe strain. The tendon was not suitable for gastrostomy; he had used it in one case for fastening the stomach to the abdominal wall; but the patient died in a few days, the stomach having fallen away from the wall of the abdomen in consequence of the too rapid absorption of the tendon.

Mr. R. GODLEE thought that the tendons were rather rapidly absorbed unless specially prepared. In a case under Mr. Lister, in which kangaroo tendons had been used as sutures to a wound, they were much altered at the end of a week. It would not be safe to apply them to an artery in its continuity; but, if properly prepared, they might be made superior even to catgut itself.

Mr. DENT said that the kangaroo tendon was very strong, and resisted the action of the tissues for a long time; but if either the tendon or the catgut were too highly prepared, a sharp edge might, in tying it, be presented to the ligature so as to cut it through. He believed that the tendon ligature was as good a form of animal ligature as any other. He had seen an artery held firmly by a tendon ligature tied in a single knot.

Dr. HEYWOOD SMITH asked if the tendon ligature had been used in ovariectomy, where great strain was liable to be exercised in consequence of the patient's efforts to vomit.

Mr. BARWELL thought the kangaroo tendon likely to be a very good ligature. He held that fresh animal tissue, presenting no sign of putrefaction, was best used, without special preparation; all that was necessary was to keep it in a proper fluid. Soaking in carbolic oil rather deteriorated it, and was liable to render it unequal in strength. He had also found the whale-tendon ligature, recommended by Ishiguro of Japan, very useful. Dr. Wyeth, of Philadelphia, had informed him that he had been using, with much success, the sciatic nerve of the calf for the purpose of ligature.

Mr. F. S. EDWARDS had tied the femoral artery with kangaroo tendon in a case of popliteal aneurism, in which Esmarch's bandage had been twice applied without success. The patient recovered, but the wound was five weeks in healing.

Mr. HOLMES had hoped to hear a more detailed account of the effects of the ligatures. The use of kangaroo tendon was not new; it had been employed at St. George's Hospital in several cases by Mr. Stirling. It would add to the value of the communication if Mr. Smith would state the conclusions at which he had arrived as to its value as a suture and as a ligature respectively. As a suture it appeared not to differ much from carbolic catgut. He was much disposed to agree with Mr. Barwell in preferring fresh tissue.

Mr. T. SMITH said that there had been no opportunity of observing the pathological changes attending the use of the kangaroo-tendon ligature; and he hoped that it would be long before it was possible to make such observations. He had never used it in ovariectomy.

TWO CASES OF UNREDUCED AND TWO CASES OF REDUCED DISLOCATION OF THE HIP.

Mr. H. MORRIS read a paper on two cases of unreduced and two cases of reduced dislocation of the hip. In *Case 1* an impacted fracture of the neck of the thigh-bone occurred in an old man, who had for years had an unreduced dorsal dislocation of the same hip. Under examination the impaction was broken down and the limb brought straight, and therefore into a much better position than it was prior to the second accident. Union of the fracture followed, with the two limbs parallel. It is suggested (1) that in certain cases of unreduced dislocation subcutaneous division of the neck of the bone should be performed, with a view to correct the more extreme inconveniences of the dislocation; and (2) that in all irreducible dislocations with fracture of the neck or shaft of the thigh-bone, the fracture should be so set as to get parallelism of the limbs by causing the fragments to unite at an angle. *Case 2* is an unreduced dorsal dislocation with fracture of the rim of the acetabulum in a young and active man. The dislocation is of fourteen months' standing, and was caused by a fall from a height during a walk in a state of somnambulism. At first the symptoms of dorsal dislocation were absent, and it was thought the trochanter major was fractured and slightly displaced upwards and outwards, but whilst lying in bed the limb gradually shortened, and at the end of ten weeks had assumed the characteristic signs of dorsal dislocation. The feature of interest is the marvellous mobility of the unreduced limb, which is capable of every form of movement common to a ball-and-socket joint, and to an almost perfect degree. It is suggested that this freedom of movement, whilst in large part due to the activity and perseverance of the patient, is also largely the result of the dislocation being direct—the result of previous fracture of the acetabulum. The head of the femur thus rests upon the bone of the pelvis, and is strapped down and steadied by the rotator muscles, whilst the neck is not wound round the capsular ligament as in the case of indirect dorsal dislocations, in which the head of the bone mounts over the rotator muscles so as to have them between it and the dorsum ilii. The case shows how a dislocation may insidiously follow fracture of the rim of the acetabulum by the mere continued traction of muscular action. *Case 3* is a thyroid dislocation, reduced by manipulation after having been converted into a dorsal dislocation. The peculiarity (as it must be called, if the text-books are correct) of the case is the shortening of the limb one inch and a quarter; but probably in all obturator luxations the lengthening is only apparent, and due to the extreme tilting of the pelvis. *Case 4*: This is a dorsal luxation of the ordinary type, and reduced by manipulation in the ordinary way. The head of the bone during reduction could be plainly felt traversing its way to the lower edge of the acetabulum, *i.e.*, retracing the course along which it was displaced. This case, and *Case 3*, in which the thyroid was converted very easily into a dorsal dislocation, and indeed all cases of pubic and thyroid luxations which are changed into posterior luxations, afford additional arguments in support of the previously published views of the author, *viz.*, that in all the ordinary dislocations backwards without fracture, whether they are spoken of as "dorsal" and "xiatic," or as Bigelow styles them, "dorsal above" and "dorsal below the obturator tendon," the femur leaves the acetabulum through a rupture of the thin part of the capsule and below the internal obturator tendon; that herein we have the *rationale* of the success of the method of reduction by manipulation; and that posterior as well as anterior dislocations occur whilst the limb is abducted. The chief museums of England, Ireland, and France have been searched for specimens of hip dislocation with this result—that there is not a single example of simple, uncomplicated, direct posterior dislocation above the obturator internus, but many of secondary dorsal and sciatic luxations; that is, luxations in which the head of the bone, having left the socket below the obturator internus muscle, had ridden upwards over it into its new position. Special reference was made to Mac Cormac's case in St. Thomas's Hospital Museum, and a diagram of it was shown.

Mr. F. S. EVE made some remarks in reference to his views on dislocation of the hip-joint, as expressed in a paper previously read before the Society, which differed from those entertained by Mr. Morris.

Mr. MORRIS briefly replied.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, JANUARY 20.

Dr. J. W. TRIPE, President, in the Chair.

At the preliminary Council-meeting a report was presented on the various duties imposed on the medical officers of health in some large towns. The Council are of opinion that it is inconsistent with the duties of a medical officer of health to undertake by himself or his subordinate officers to purchase horses, or to arrange for the scavenging and removal of street refuse. It is also no part of his duty to superintend hospitals for infectious disease, nor to prosecute offenders in a civil court.

Six candidates were put in nomination for election as members of the Society.

Dr. STEVENSON inquired if it was considered to be a part of the duties appertaining to his office to experiment with instruments invented for the purpose of ascertaining the amount of pressure of sewer-air in different parts of his district.

The PRESIDENT replied that the clause "other duties that may be required of him" seems very elastic. At the same time we may decline to experiment with special instruments as being unacquainted with their merits and mode of action.

Then followed a discussion upon the method to be adopted of ascertaining the precise cause of death where certificates are sent in which are not considered correct returns. It was agreed that such records may be verified or otherwise by inquiry at the house, or by a footnote indicating a doubtful return.

Dr. BROWNING's paper on the Practical Working of Direct Vaccination from the Calf was then read (*vide* page 197).

In the debate which followed, Dr. DRYSDALE said he was persuaded that in time we shall have to abolish arm-to-arm vaccination. Animal vaccination must be a guarantee against syphilis, and it is well to make our art as popular as possible. Cases had been reported of confluent small-pox after successful vaccination, whereas Jenner never had variola after vaccinia—showing that the lymph now in use must have lost some of its former power. In the last report of the Highgate Hospital, out of 491 patients admitted during the previous six months no less than 469 had been vaccinated. Only twenty-one were unvaccinated, and of these one in five died. Vaccination is therefore not so prophylactic as we have supposed. In California there was a great epidemic of small-pox: 875 were attacked, and 215 died, or 29 per cent. Almost all were vaccinated. Since the Californians have been vaccinated with calf-lymph there have been no cases of small-pox. There is surely a strong argument in its favour with 97 per cent. of successes, and no chance of syphilis.

Dr. RENNER remarked that no one now doubts that animal vaccination affords a protection not inferior to arm-to-arm vaccination. Dr. Marten offered £100 if a case of small-pox were reported following upon calf-vaccination. The reward has not been claimed. Calf-lymph is more plastic than human lymph, and therefore not so easily absorbed by punctures as by scratches. There need be no fear of failure if the lymph is properly inserted. Calf-lymph does not keep so long as human lymph; it is therefore well to use it quickly. We need not fear bad arms or complaints of erysipelas. A sickly calf will not develop proper vesicles. If other countries use calf-lymph with perfect success, why not this? At times of panic an almost unlimited supply can be sent out at a moment's notice.

Dr. TURNER had used calf-lymph in his district with success. When a child he was well vaccinated, and yet he took small-pox; and, still more remarkable, some years after, when vaccinating a calf, he wounded his finger, and it developed a perfect vaccine vesicle. In scattered populations he prefers arm-to-arm vaccination.

Dr. CORFIELD remarked that enormous benefits had accrued from arm-to-arm vaccination.

Dr. BRISTOWE alluded to the epidemic of small-pox at Camberwell, and said that many cases had been well vaccinated.

Mr. WYNTER BLYTH remembered attending an old man pitted all over with small-pox, and yet he took it again and died. Revaccination should be enforced at each epidemic visitation.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—Appended is a classified list of the successful candidates at the recent Matriculation Examination:—

Honours Division.—Alfred Cardew Dixon (Exhibition of £30 per annum for two years), Frederick Charles Badrick, John Cbevallier, James Gray, Edward George Baker, James Ross, Herbert Saunders Wansbrough Jones, James Mills, John Frederick Wilkinson, Harry Williams Palmer.

First Division.—John Hill Abram, Alexander Louis Achard, William Henry Ambrose, Samuel Bear Asher-Aron, Henry Talbot Sidney Aveline, Alfred Bernard Badger, Harry Shakespeare Badger, Alfred Bagguley, William John Anstice Edward Banister, Marmaduke Bannister, George Alexander Heaton Barton, Arthur Baxendell, John Dowling Baxter, John Henry Bebbington, George William Bell, Richard Berncastel, Leonard Arthur Bidwell, Robert McBrair Biles, William Henry Blake, Thomas Bingley Boss, Richard Oxley Bowman, Flora Miriam Bristowe, Thomas Burton, William John Cameron, Andrew Carr, Peter Chadwick, James Chambers, John Clarke, William Joy Clarke, Louis Vincent Clayton, Charles Allforth Coleman, James Connor, Edward Thomas Cook, Thomas Cooksey, Arthur Cornish, Edward Cornish, Ward Couldridge, John William Cunliffe, David Oswald Davies, Evan Richard Davis, George Herbert Davis, Bertrand Edward Dawson, Charles Henry Denyer, Thomas Francis George Dexter, Alfred Norman Disney, Ernest Richard Dolby, Charles Duer, Maud Mary Eccott, Robert Henry Elliot, Henry Heath Fawcett, Walter Bourne Fearis, Charles Hermann Fernau, William Dunn Foster, Edward Gilbert, Frederick William Gilks, Albert Edward Godfrey, Israel Gollancz, Frank Gover, William Johns Gray, George Edward Green, Gertrude Bessie Green, William Greenwood, Edith Victoria Gregson, George Frederick Grierson, William Samuel Grigsby, Percy Groom, Margaret Elizabeth Guest, Benjamin William Hallifax, William George Hancock, Arthur Harden, Alexander Sutherland Harris, Walter Harris, Augustus Taylor Harrison, Francis Arnold Harsant, Heber Leonidas Hart, Hugh Paul Helsham, George Hill, George James Hill, Walter Herbert Hill, William Henry Hillyer, William Hosking, Henry William Hughes, John Henry Hutchings, William Parkinson Iddeson, Andrew Inglis, Sydney Isaac, Louis George Wiltshire Ivory, Henry Caldwell Jack, Adalbert James Jackson, Edith Jackson, Henry Jackson, Herbert Levi Jacobs, Richard Henry Jenkin, Arthur Wansbrough Jones, Alfredo Antunes Kanthack, William Kay, John Willis Kearns, Edmund Delacourt Kell, Peter Kennedy, James Barber Kirby, John Herbert Lascelles, Maud Mary Leader, Cyrus Legg, John Henry Leonard, James Lauriston Lewis, Lionel Arnold Light, Joseph Ernest Lock, Samuel Thomas Lock, Harry Locke, Charles Septimus Lodge, Walter Humboldt Low, Annie Lawrence Lubham, Horace James Maidment, William Job Maillard, John Mallard, Herbert Mason, Henry Matthews, Frank Miles, Joseph Morant, Ernest Morley, James Scholefield Morris, Albyn Arthur Mulloy, Alexander Murdoch, William Nash, Amy Isabel Norton, Maurice Bowen O'Connor, Lucius Trant O'Shea, John William Pallister, Arthur Cyril Parry, Charles Edward Phipps, Evan Vaughan Pike, Thomas Wilkence Piper, Charles James Pope, Herbert Edward Pownall, Charles Thomas Price, Edgar Priestley, Henry Thomas Pugh, Alfred Puleston, Cecil Frank Rawson, Henry Ramsden Redman, Arthur Edwin Restarick, Thomas Arthur Rickard, Nicholas Charles Ridley, Garnham Roper, William Russell, John Erskine Grant Sandford, Ramon Alexander Sawyer, Herman Emil Schmitz, Robert Alexander Scott, Arthur Sellers, Bernhard Sickert, Edward Gustavus Sieveking, Sidney Skinner, Ernest Alfred Smedley, Alfred Harvey Smith, Alice Newland Smith, Nugent Edward Smyth, Ernest Hugh Snell, Charles Thomas Soar, Ernest Solly, Helen Sparks, Henry Bath Spencer, James Howard Staines, Wilson Henry Sturge, William Edward Sumpner, Sidney Sampson Swift, Edward William Talbot, Ernest Robert Tarback, Felix Taylor, Marion Alexandra Taylor, Alexander Louis Teixeira de Mattos, Andrew Telfer, Emanuel Lewis Hensbaw Thomas, Herbert John Thomas, John Josiah Thomas, Arnold Bentley Thorp, Edith Todd, George Edwin Tyrrell, James Upton, John Turner Waddy, William Henry Ware, Ernest Henry Richmond Watts, Richard Frederick Way, Richard Henry Weymouth, Thomas Railton Whitelock, Tom Whittle, Edwin Williams, Frank Lomax Wood, Richard John Wood, Walter George Woolcombe, Charles Ellis Youngman.

Second Division.—Henry Stephen Akehurst, Henry John Tyack Bake, Herbert Stanley Ballance, Lionel Henry Barnard, Joseph Harger Bateson, Ambrose Bennett, Samuel Dyke Bennett, Arthur Bentham, George Arthur Berry, Albert Henry Arthur Bestall, Frederick Paul Bird, William John Birks, William Good Boul, Rubert William Boyce, Edward Braddy, William Branson, Robley Henry John Browne, Herbert Harrison Brownlow, Ernest Edward Carr, Sydney Cartwright, Eber Caudwell, Francis William Clark, Athanasius Constanduros, Ely Wilkinson Crossley, Robert Duckworth, Jane Ann Dunbar, Edward Edmonds, John James Edwards, Ferdinand Leopold M. Percy Firminger, Francis Roper Fourness-Brice, Augustin Gaba, James Goodliffe, William Allerton Goodwin, George Herbert Grey, Thomas Harrison, Harry Philip Harwood, Edgar Goodman Hawkins, Herbert Vigers Hickman, Thomas John Hicks, Samuel Frederick Holloway, Frederick Hudson, Henry Hudson, Margaret Helen Huntsman, George Jackson, John David Jones, Margaret Dawson Kerr, Charles Dixon Kimber, Frederick Wm. Washington Kingdon, George Herbert Kingston, William Hugh Knight, Roger William Lewis, Thomas Newel Lewis, Edward Selby Little, Charles Livermore, John Foster Makepeace, Frederic Marshall, Joseph Travis Mills, Horace Mitchell, Elise Morgan, Thomas Alexander Murray, Charles Pye Oliver, Frederick Percy Owen, John Porter Parkinson, John George Denman Partridge, Richard Hugh Penton, Albert James Perman, Gerald Stanley Philip, James Raper Phillips, Llewelyn William Powell, Charles Edward Pressland, William Halse Rivers, Joseph Crofts Rossall, Arthur Bretherton Rouch, Joseph Routledge, Thomas Bateman Sandland, Arnold Scott, Aubrey Hilsdon Shurrock, Herbert Slater, Edwin Richard Smetham, Frederick Arthur Smith, Guy Bellingham Smith, William Silverthorne Spokes, William Steel, Frederick William Stokes, Arthur Arnold Sykes, Henry Symonds, John Herbert Tonking, Sargen Tordeoff, Edward Hamilton Tuckett, Sydney Garratt Vinter, Henry Turner Waddy, George Whitley, James Moreton Willdig, William Griffith Williams, George Arthur Wright, Henry Woodley Wright, Joseph Wright.

UNIVERSITY OF DUBLIN.—At the Hilary Term Examinations for the degree of Bachelor in Medicine (M.B.), held on Monday and Tuesday, February 6 and 7, 1882, the successful candidates passed in the following order of merit.

Russell, George B.
Pigot, Edward F.
Brooks, Henry St. J. } equal.
Burke, William H.
Smith, Travers M.

Dean, George F.
Carson, James S. } equal.
Gloster, James.
Gowland, John W.
Neary, Patrick.

At the examination for the degree of Bachelor of Surgery (B.Ch.), held on Monday and Tuesday, February 13 and 14, the successful candidates were placed in the following order of merit:—

Russell, George B.
Pigot, Edward F.
Gillespie, Thomas R.

Brooks, Henry St. J.
Marshall, George A.
Craig, James.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 16:—

Groom, William, North Brink, Wisbeach.
Hewkley, Frank, 33, Philips-road, Dalston, E.
Modi, Hormasji Reestomji, Bombay.
Sinclair, John, Kingsclere, near Newbury.
Treadwell, Oliver F. N., 23, Lorn-road, Brixton, S.W.
Trevor, Edward Tull, Queen's-gardens, Hyde-park, W.
Walker, Francis John, Spilsby, Lincolnshire.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Benerjee, Mahendra Nath, King's College and Calcutta.
Griffin, John Hubert, St. Bartholomew's Hospital.
Martin, Henry Joseph W., University College.
Parsons, William Charles, London Hospital.
Rvan, Thomas, Dublin Hospital.
Willcocks, Arthur D., University College.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

ACLAND, T. D., M.B., L.R.C.P., M.R.C.S.—Resident Accoucheur at St. Thomas's Hospital.
BROWN, C. W. HAIG, M.R.C.S., L.S.A.—Assistant House-Surgeon to St. Thomas's Hospital.
CARPENTER, A. B., L.R.C.P., M.R.C.S.—House-Physician to St. Thomas's Hospital.
COLLIER, M. P. M., F.R.C.S., M.B., M.S.—House-Surgeon to St. Thomas's Hospital.
HEELIS, R., M.R.C.S., L.S.A.—Junior Assistant House-Physician to St. Thomas's Hospital.
HUTCHINSON, S. J., L.D.S., M.R.C.S. Eng.—Dental Surgeon to the Dental Hospital of London, Leicester-square, *vice* A. Coleman, L.D.S., F.R.C.S. Eng., resigned.
MARLOW, F. W., M.R.C.S., L.S.A.—Senior Assistant House-Physician to St. Thomas's Hospital.
MOULLIN, C. W. MANSELL, M.D. Oxon., F.R.C.S. Eng.—Lecturer on Comparative Anatomy at the London Hospital Medical College.
SUTTON, S. W., M.B., L.R.C.P., M.R.C.S.—House-Physician to St. Thomas's Hospital.
WHITE, E. F., M.R.C.S., L.S.A.—House-Surgeon to St. Thomas's Hospital.

BIRTHS.

ELLIOT.—On February 20, at The Firs, Belvedere, the wife of John Elliot, M.R.C.S., of a daughter.
FLEMING.—On February 20, at 155, Bath-street, Glasgow, the wife of William James Fleming, M.D., of a son.
GREENHILL.—On February 18, at Cotehell-terrace, Stoke, Devonport, the wife of Surgeon-Major J. R. Greenhill, A.M.D., F.R.C.S., of a daughter.
GRIMSHAW.—On February 13, at Priorsland, Carrickmines, co. Dublin, the wife of T. W. Grimshaw, M.D., Registrar-General of Ireland, of a daughter.
MILLER.—At Percy House, 15, Percy-circus, W.C., the wife of John Alex. Miller, L.K.Q.C.P., of a son.
MORRIS.—On February 17, at Windmill, Bishop's Stortford, the wife of J. E. Morris, M.R.C.S., of a daughter.
RICHARDSON.—On February 11, at Lynstead, Torquay, the wife of J. B. Richardson, M.B., of a daughter.
SKIMMING.—On February 19, at Tudor Lodge, East Molesey, Surrey, the wife of Robert Skimming, M.D., F.R.C.S., of a daughter.
SMITH.—On February 18, at Fairholme, Twickenham, the wife of Ernest Barrott Smith, M.B., of a son.
WATSON.—On February 16, at Tottenham, Middlesex, the wife of W. Tyndale Watson, M.D., of a son.

MARRIAGES.

- BEEVOR—LEADAM.—On February 7, at St. Marylebone, Charles Edward Beavor, M.D., to Blanche Adine, third daughter of the late Thomas Robinson Leadam, M.D., of Stratfield House, Mortimer, Berks.
- CHILTON—RICHARDSON.—On December 20, 1881, at Dunedin, New Zealand, Maurice Alfred Chilton, County Surgeon of Waimote, to Elizabeth Murray, eldest daughter of the late W. H. Richardson, Esq., of Langford House, Fivehead, Somersetshire.
- PRESTON—BENNETT.—On February 15, at Redcar, Arthur Wilfred, fourth son of Francis Preston, Esq., of Kirkburton, to Mary, fourth daughter of J. H. Bennett, M.D., of Redcar.
- RAYNER—FIELD.—On February 18, at Warwick, Henry Rayner, M.D., of Hanwell, to Rosa, daughter of Alfred Field, Esq., of Leam, Leamington.
- STOLTERFOTH—PRICE.—On February 16, at Chester, Henry Stolterfoth, M.D., to Mary Elizabeth, only daughter of John Price, Esq., of Watergate-street, Chester.

DEATHS.

- CHEVERS, FORBES McBEAN, M.D., Coroner and J.P., at Cedar Grove, Manchester, Jamaica, on January 16, aged 78.
- FELLOWES, HENRY THOMAS ARDY BUTLER, M.R.C.S., L.S.A., at Chobham, Surrey, on February 18, aged 25.
- FORD, SARAH SELINA, wife of Alfred Ford, M.R.C.S., at 22, Gloucester crescent, Regent's-park, on February 19, aged 66.
- ROBERTSON, AUGUSTA ZUHLCKE THURLOW, wife of George Robertson, M.D., R.M., Staff Surgeon H.M.S. *Lord Warden*, at 9, South-East Circus-place, Edinburgh, on February 21, aged 32.
- TOOZE, FREDERICK RANDOLPH, M.R.C.S., on February 17.
- WILLIAMS, B. H., M.R.C.S., Surgeon of the 34th Regiment Madras Native Infantry, late of Mangalore, at Haverfordwest, on February 15.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

- ABERYSTWYTH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon; will also have to act as Secretary and Dispenser. Candidates must be registered to practise in medicine and surgery, and are prohibited from engaging in private practice or attending to any other business than that of the Infirmary. Knowledge of Welsh desirable. Applications, with testimonials, to be sent to Mr. Evan Evans, solicitor, Aberystwith, not later than February 28.
- CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S-INN-ROAD, W.C.—Assistant-Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and produce certificates of having attended the practice of some ophthalmic institution for at least six months. Testimonials to be addressed to the Secretary on or before March 4.
- DENTAL HOSPITAL OF LONDON, LEICESTER-SQUARE, W.—Administrator of Anæsthetics. (For particulars see Advertisement.)
- DENTAL HOSPITAL OF LONDON, LEICESTER-SQUARE, W.—Assistant Dental Surgeon. (For particulars see Advertisement.)
- GENERAL INFIRMARY, NORTHAMPTON.—Assistant House-Surgeon. (For particulars see Advertisement.)
- HYDROTHERAPEUTIC SANATORIUM, BUSHEY, HERTS.—Physician. (For particulars see Advertisement.)
- ROTHERHAM HOSPITAL.—Resident House-Surgeon. Candidates must be members of the Royal College of Surgeons of England, and Licentiates of the Society of Apothecaries, or of the Royal College of Physicians of London; registered and unmarried. Preference will be given to those candidates who have held the office of House-Surgeon or Assistant House-Surgeon in a large hospital or infirmary for at least twelve months. Applications, with testimonials as to professional ability and moral character, to be sent to John Barras, Hon. Secretary, on or before February 28.
- WESTERN OPHTHALMIC HOSPITAL, 155, MARYLEBONE-ROAD, W.—Surgeon. (For particulars see Advertisement.)
- WEST LONDON HOSPITAL, HAMMERSMITH.—Assistant-Physician. Candidates are required to be Fellows or Members of the Royal College of Physicians of London, and not to be practising as apothecaries. Applications and testimonials to be sent to R. J. Gilbert, Secretary, up to March 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

- Alston-with-Garrigill Parish.—Dr. Railton Gill has resigned the Workhouse and the First District: area 12,000 acres; population 2327; salary £1 per annum. Salary for Workhouse £10 per annum.
- Llanfyllin Union.—Mr. E. J. Edwards has resigned the Llanfyllin District: area 33,442 acres; population 5515; salary £65 per annum.

APPOINTMENTS.

- Bridgnorth Union.—Wm. Rhodes, M.R.C.S. Eng., L.R.C.P. Edin., to the Third District and the Workhouse.
- Ripon Union.—Thomas Millar, L.F.P. & S. Glasg., L.R.C.P. Edin., to the Third District.
- Settle Union.—John R. Lazenby, F.F.P. & S. Glasg., L.S.A., to the Long Preston District.

ANALYSTS.

- Maidstone.—Matthew Algernon Adams, F.R.C.S.E. and F.C.S., appointed Analyst for the Borough. Remuneration £10 10s. per annum and fees.
- Newcastle-under-Lyme.—Thomas Purdie, jun., B.Sc. Univ. Lond., F.C.S., appointed Analyst for the Borough, vice Dr. Clowes, resigned.

THE directors of the Royal Edinburgh Hospital for Sick Children have elected Dr. R. Peel Ritchie, F.R.C.P. Edin., one of the Consulting Physicians to the Hospital, in place of the late Sir Robert Christison. Dr. Ritchie was for many years one of the ordinary Physicians to the Hospital.

NEW VAGINAL SUPPOSITORIES IN LEUCORRŒA OF PREGNANCY.—Dr. Waugh speaks highly (*Philadelphia Med. Reporter*, January 7) of a suppository made by Dr. Mitchell, Ninth-street, Philadelphia, as a substitute for the cocoa-butter suppository, which melts too quickly, and is both filthy and inefficient. This one is composed of gelatine and glycerine (variously medicated), cast in a hollow form, and supported on a pledget of cotton. It melts slowly, is light, and is readily retained at the upper part of the vagina. It is very clean, and, when melted, the cotton does not irritate, or, should it do so, is easily removed. Dr. Waugh has used with advantage a formula directing each suppository to contain ten grains of sulpho-carbolate of zinc and half a grain of sulphate of morphia.

SMALL-POX AND FEVER HOSPITALS.—The Royal Commission on Small-pox and Fever Hospitals met on the 21st inst. There were present—Lord Blachford (chairman), Sir James Paget, Sir Rutherford Alcock, Mr. A. W. Peel, M.P., Mr. E. L. Pemberton, M.P., Dr. A. Carpenter, Dr. J. Burdon-Sanderson, Dr. W. H. Broadbent, Mr. Jonathan Hutchinson, and the Secretary, Mr. Nathaniel Baker.

FOLLICULAR TONSILLITIS AND DIPHTHERIA.—In a clinical lecture, Dr. Jacobi (*Boston Med. Journal*, December 29) observes that when suppuration does not take place in inflamed tonsil, and the contents of the dilated ducts are not expelled, they dry up and form cretaceous masses, which have been called tonsil-stones. It is of the utmost importance that this condition, which is local, and occurs only in the follicles should not be confounded with diphtheria. To-day there may be only a few white spots, but to-morrow, if the disease be diphtheria, these will have coalesced and there will be membrane; so that it is of importance that the distinction between them should be made at once. In follicular disease a fine probe may be easily run into the dilated ducts of the follicles to from one-sixth to half an inch or more. In diphtheria this cannot be done, and here the spots need not correspond with the follicles and will not admit a probe. Every case of diphtheria ought to be looked upon as severe, for cases which seem well may totally change in a few hours. The cases which are looked after from hour to hour in the large majority of instances get well; but when not seen to frequently their chances are much worse. The lymphatics of the neck are enlarged only when the disease has invaded the nares or pharynx,—never when the tonsils alone are the seat of the disease. Diphtheria of the tonsils is usually a mild disease, but needs careful watching, as there is no telling when it may extend. A dose should be given every twenty minutes, containing chlorate of potash, iron, glycerine, and water. By giving it in this way you are constantly washing the affected tonsils with the potash and iron. In the night the child should be waked up every hour for the medicine. A sleep of six or eight hours is too long, as in much less time the diphtheria may develop into a fatal attack. If he is awakened every hour he will fall asleep almost immediately afterwards.

HYDROPHOBIA IN PARIS.—Dr. Dujardin-Beaumetz, on presenting to the Académie de Médecine the report of the Conseil d'Hygiène as to the measures which should be taken for the prevention of hydrophobia in Paris, observed that the Council has been much struck by the number of cases of the disease which occurred during the last year, this amounting to twenty-three, being the largest number observed in any year, except in 1878, when there were twenty-four cases. The report calls for a more stringent execution of the means placed in the hands of the police for the destruction of wandering dogs, which, always so numerous in Paris, constitute a permanent focus of rabies. Thus, the Ordonnance of 1878 should be so put into force as to regard every dog that is not held by a string, closely accompanied, or well watched, as a wandering dog. Such dogs should at once be taken to the dépôts and immediately slaughtered, if they are not furnished with the collar, obligatory by law, bearing the owner's name and address. Dogs even who have such a collar should be killed in forty-eight hours after intimation has been sent by post to their owners that they are in custody.—*Bulletin de l'Académie*, February 14.

THE BERLIN VEREIN FÜR INNERE MEDICIN.—At its meeting, under the presidency of Prof. Frerichs, on January 30, this Society elected the following honorary members:—In Germany: Profs. Kussmaul, Friedreich, Rühle, Bamberger, Gerhardt, and Nothnagel. In Great Britain: Sir William Gull, and Drs. Grainger Stewart and Pavy. In Russia: Drs. Botkin and Eichwald. In Italy: Drs. Baccelli and Cantani.—*Deutsche Med. Woch.*, February 4.

APPOINTMENTS FOR THE WEEK.

February 25. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Mr. W. Watkiss Lloyd, "The Iliad and Odyssey."

27. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Edentata." Lecture I.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. D. W. Charles Hood, "Notes of a Case of Enteric Disease followed by Phlebitis and Pulmonary Thrombosis." Mr. Kenneth W. Millican (of Kineton), "On some Suggestions for a Modification of the Germ Theory of Disease." Dr. B. W. Richardson, "On Bichromate Disease."

28. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Professor John G. McKendrick, "On the Mechanism of the Senses."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. Champneys, "On Artificial Respiration in Stillborn Children; Mediastinal Emphysema and Pneumothorax in connexion with Tracheotomy." Dr. A. Money, "On the Great Frequency of Cardiac Murmurs in the Puerperal State."

March 1. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Fowler.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Edentata." Lecture II.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 5½ p.m. Annual Meeting: Report, President's Address, etc.

EPIDEMIOLOGICAL SOCIETY (Council Meeting, 7½ p.m.), 8 p.m. Dr. Hubert Airy, "On the Probability that the Infection of Diphtheria is sometimes transported by the Wind."

OBSTETRICAL SOCIETY, 8 p.m. Specimens will be shown. The following papers will be read:—Dr. W. S. Playfair, "Notes on Trachelo-raphé, or Emmet's Operation." Dr. W. A. Popow (of Pensa), "On the Corpus Luteum."

2. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ROYAL INSTITUTION, 3 p.m. Dr. P. L. Selater, "On the Geographical Distribution of Animals."

HARVEIAN SOCIETY, 9 p.m. Dr. Edis, "On Cases of Menorrhagia; with Remarks." Dr. Cleveland, "On Primary and Secondary Vaccination."

3. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Edentata." Lecture III.

ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Mr. William Ewart, "On Pulmonary Cavities: their Origin, Growth, and Repair." (First Gullstonian Lecture.)

ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Mr. A. Tylor, "On Roman Antiquities in London."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 18, 1882.

BIRTHS.

Births of Boys, 1337; Girls, 1307; Total, 2674.

Corrected weekly average in the 10 years 1872-81, 2747·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	1063	1123	2188
Weekly average of the ten years 1872-81, ...	937·5	913·3	1850·8
Deaths of people aged 80 and upwards ...	...	...	100

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	668993	...	4	3	1	26	...	2	1	1
North ...	905677	...	7	4	1	30	...	5	1	...
Central ...	281793	...	2	...	1	14	...	3	1	3
East ...	692530	1	5	9	1	71	...	1	...	1
South ...	1265578	16	28	9	2	64	1	3	...	6
Total ...	3814571	17	46	24	6	205	1	14	3	11

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	29·972 in.
Mean temperature ...	...	45·5°
Highest point of thermometer ...	...	55·4°
Lowest point of thermometer ...	...	32·4°
Mean dew-point temperature ...	...	41·9°
General direction of wind ...	...	S.W.
Whole amount of rain in the week ...	...	0·53 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Feb. 18, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Feb. 18.	Deaths Registered during the week ending Feb. 18.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)		Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.		Weekly Mean of Daily Mean Values.	In Inches.
London ...	3891078	2674	2188	29·3	55·4	32·4	45·5	7·50	0·53
Brighton ...	109595	70	63	30·0	51·6	32·0	44·5	6·93	0·45
Portsmouth ...	129918	99	49	19·7	...	...	...	...	...
Norwich ...	83821	61	42	24·7	...	...	...	...	...
Plymouth ...	74449	32	37	25·9	54·8	33·2	46·2	7·89	0·65
Bristol ...	210134	128	84	20·9	54·2	34·2	45·0	7·22	0·75
Wolverhampton ...	76756	44	41	27·9	53·8	29·0	42·1	5·62	0·63
Birmingham ...	408532	297	177	22·6	...	...	...	...	...
Leicester ...	126275	100	34	14·0	...	...	...	...	...
Nottingham ...	193573	133	81	21·8	54·8	29·1	44·0	6·67	0·67
Derby ...	83587	57	31	19·4	...	...	...	...	...
Birkenhead ...	86532	70	35	21·1	...	...	...	...	...
Liverpool ...	560377	385	266	24·8	56·0	37·3	45·9	7·72	0·24
Bolton ...	106767	82	48	23·5	...	...	...	...	...
Manchester ...	340211	214	184	28·2	...	...	...	...	...
Salford ...	184004	111	91	25·8	...	...	...	...	...
Oldham ...	115572	52	63	28·4	...	...	...	...	...
Blackburn ...	106460	74	72	35·3	...	...	...	...	...
Preston ...	97656	73	55	29·4	...	...	...	...	...
Huddersfield ...	83418	42	42	26·3	...	...	...	...	...
Halifax ...	74713	42	32	22·3	...	...	...	...	...
Bradford ...	188101	112	85	23·6	53·6	34·9	44·3	6·84	0·33
Leeds ...	315998	202	137	22·6	56·0	31·0	44·7	7·06	0·06
Sheffield ...	230516	189	128	22·6	56·0	34·0	45·7	7·61	0·39
Hull ...	158814	108	60	19·7	54·0	29·0	42·6	5·90	0·22
Sunderland ...	119065	88	53	23·2	62·0	33·0	47·1	8·39	0·03
Newcastle ...	147626	84	65	23·0	...	...	...	...	...
Cardiff ...	83724	84	34	20·5	...	...	...	...	...
For 28 towns ...	8453320	5707	4275	26·4	62·0	29·0	44·8	7·12	0·41
Edinburgh ...	232440	120	94	21·1	52·8	31·4	42·9	6·06	1·11
Glasgow ...	514048	371	276	28·0	56·0	32·5	44·3	6·84	1·95
Dublin ...	348293	190	246	36·9	55·6	33·6	44·4	6·89	0·25

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·97 in. The lowest reading was 29·57 in. on Wednesday morning, and the highest 30·24 in. on Thursday morning.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Associate, King's College.—The eldest son of the late Sir William Fergusson is Sir James Fergusson, a barrister.

A Student, Liverpool.—Candidates rejected at the ensuing examination will not be allowed to present themselves for re-examination until the expiration of three months for the "primary" and of six months for the "pass."

O. L., Lambeth.—The distinction between drains and sewers is thus laid down in the Public Health Act, 1875: "Drain" means any drain of, and used for the drainage of, one building only, or premises within the same curtilage, and made merely for the purpose of communicating therefrom with a cesspool, or other like receptacle for drainage, or with a sewer into which the drainage of two or more buildings or premises occupied by different persons is conveyed. "Sewer" includes sewers and drains of every description, except drains to which the word "drain" interpreted as aforesaid applies.

More Football Casualties.—At Middleton, Oldham, during a match played under the Rugby rules, on the 11th inst., a "scrimmage" ensued, when five of the players were seriously injured. One young man received severe injuries to his ribs, whilst two others were badly hurt. This is the third football casualty in this district within the past few weeks, one terminating fatally. — At Sheffield, a few days since, two boys whilst playing at this game were injured. One had his collar-bone broken, and the other, it is said, was seriously hurt in the side.

Alcoholic Drinks: Madagascar.—It is said that the Queen enforces a penalty of ten oxen and £2 on any person found manufacturing intoxicating drinks, and a lighter fine on those who sell and those who drink it.

London Shop Employés.—These assistants are looking with some confidence to the House of Lords to redress their grievances. The Bill which Lord Stanhope has been induced to back, with a view to its introduction into Parliament during the session, appears to be sufficiently modest in its aim. The public will, no doubt, agree with the promoters of the Bill that ten hours of close confinement in a shop should satisfy even the most exacting employer. Two hours are to be added to this limit during what is called the season of sixty days.

Justitia, Guildford.—The Act to regulate Labour in Factories in India passed and received the assent of the Governor-General in 1880. It applied to the whole of British India, and was compulsory.

The Social Evil.—The Contagious Diseases Acts is the only real attempt ever made by our Legislature to control the evil. The first Act passed, in 1864, was a temporary measure. The first permanent Act was passed in 1866, and subsequently amended Acts have been passed in 1868. The Admiralty and Secretary of State for War have powers to appoint visiting surgeons and inspectors. They do not directly come under the cognisance of medical officers of health.

Crèche.—Crèches appear to have been originated by Oberlin, the well-known Protestant pastor of the Vosges. They were definitely established in France about the year 1826.

Our Canal Population.—The Bill for the amendment of the Canal Boats Act will this session be first introduced into the House of Lords. The maximum age of the children to be brought under the provisions of the Bill will be reduced from eighteen to sixteen years. It is also proposed to remit the school fees, to which the parents of children would otherwise be liable, and to allow a moiety of the penalty inflicted for an infraction of the law, to be paid to the informer.

A Cottage Hospital is being erected near Whitby. It will accommodate sixteen persons, including four for accidents. The cost will be about £2400.

A City Pension.—It is stated that the Corporation will grant a pension to the Surgeon of Newgate of £200 a year, consequent upon the closing of the prison, and the loss of his office.

Small-pox, Sydney.—The Agent-General for New South Wales has received the following telegram from the Government at Sydney:—"The Board of Health reports that there has not been a case of small-pox in Sydney since January 26, and that there is not now a house in quarantine; in fact, so far as is known, New South Wales is free from disease, with the exception of cases at the quarantine station and sanatorium, where all are progressing satisfactorily."

Milk.—In Sweden and Denmark, sheep's milk is generally used; in Switzerland, goat's milk; in Lapland, reindeer's milk; and in Tartary, mare's milk.

A Guild of Health.—Sir Henry Cole suggests that for the protection of health and prevention of fevers of all kinds, a guild of health, voluntary, self-supporting, and self-managing, should be established throughout the kingdom in every parish district at least, and that there should be a central station or office established in it, connected with some suitable shop, such as an ironmonger's, turnery, etc., on the principle of post-offices.

"THE BOTTLE."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The other day, a young lady showed me a pustule in the palm of her hand, telling me that something had pricked her there while she was rubbing in some glycerine jelly a few days previously.

On introducing the point of a bistoury, I found and removed from its depths a triangular shiver of glass of extreme tenuity; and on examining the small bottle which had contained the jelly, I found that although apparently sound, its bottom (inside) was in a state of vitreous desquamation, and that other portions of it could be detached in scales with the most perfect ease.

I should not, perhaps, have called your attention to this apparently somewhat trifling case, but that it reminded me that a few weeks ago I shook some similar and much larger shivers from out a draught bottle, and that I also found in a twelve-ounce bottle a rod of glass the size of a large carpet-pin, extending from one wall to the other, and not easily observed by gaslight. Neither the scales nor the glass rod would have produced agreeable effects if lodged in the fauces or œsophagus; and as it is possible that the imperfection in the bottles is owing to something preventable in the process of moulding or casting, it may be well to call the attention of the manufacturers to the fact.

Though not a total abstainer, I am continually cautioning my patients as to the dangers of the bottle, but have hitherto alluded to the contents, and not to the bottle itself, as the source of danger.

I am, &c.,

THOMAS E. AMYOT.

Baz, Minorities.—There is no danger in eating the flesh of animals whose death has resulted from accident, but the flesh of such as have been excited before death by over-driving or by torture has frequently proved unwholesome.

P. Donald F., Wilts.—"Local authority," under the Public Health Act, means "urban sanitary authority and rural sanitary authority." All local sanitary authorities have power to mortgage any fund, rate or rates, in order to raise money for sanitary purposes.

Alkali Works.—The Local Government Board has issued a circular in reference to the requirements of the Alkali, etc., Works Regulation Act, 1881, as to the registration of the several kinds of works to which the Act applies. Owners of such works are required to make application for certificates of registration in the months of January or February in every year. Owners of any works which are carried on after April 1, 1882, without being registered, are liable to a penalty, not exceeding £5 for every day, for such non-compliance with the Act.

C. Collard T.—The driver was quite right. Under the Public Health Act no owner or driver of any public conveyance shall be required to convey a person suffering from infection until they have been first paid a sum sufficient to cover all such expenses.

Inquirer.—The number of visitors to the Smoke Abatement Exhibition at South Kensington, up to its closing, is said to have been no less than 116,000. Of these, 40,600 were admitted by payment. Financially, there is a deficiency of about £800, which, it is stated, can be met or provided for.

Citizen.—Overcrowding is at least of two kinds—too many people living and sleeping in one habitation, and too many dwellings in a given area. The medical officer of health will usually act in cases of overcrowding, on information from either the inspectors of nuisances or other persons.

COMMUNICATIONS have been received from—

Mr. CRAIGIE, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Dr. E. LOWDELL, Upper Norwood; THE EDITOR OF THE "BRITISH MEDICAL JOURNAL," London; Dr. BURCHARD, Breslau; Dr. AMYOT, Diss; Mr. WATSON CHEYNE, London; Mr. CLEMENT LUCAS, London; Messrs. CALVERT and Co., London; Dr. J. SPOTTISWOODE CAMERON, Huddersfield; Dr. Ash, Holsworthy; Mr. A. R. ANDERSON, Nottingham; Mr. HENRY MORRIS, London; Dr. HERMAN, London; Dr. G. COLOMB, Milan; Dr. IRVINE, Edinburgh; THE HONORARY SECRETARY OF THE MEDICAL SOCIETY OF LONDON; THE SUB-LIBRARIAN OF THE OBSTETRICAL SOCIETY, London; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE MEDICAL AND CHIRURGICAL SOCIETY, London; THE SECRETARY OF THE LONDON SANITARY PROTECTION ASSOCIATION; THE SECRETARY OF THE HARVEIAN SOCIETY, London; Messrs. NEWBURY and Sons, London; THE SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; Messrs. JARROLD and Sons, London; THE SECRETARY OF THE HOME HOSPITAL SOCIETY, London; Dr. WILLOUGHBY, London; Mr. RIDLEY DALE, Sunderland; Dr. WILLIAM ALEXANDER, Liverpool; Mr. MARK H. JUDGE, London.

BOOKS, ETC., RECEIVED—

The Life Almanack and Diary of the Briton Life Association (Limited)—Ein Aetzmittelträger und eine Tropfenspritze für den Kehlkopf, von Dr. Schuster El Sentido Católico en las Ciencias Médicas The Idiot, by Frederic Bateman, M.D., F.R.C.P.—Report on the Sanitary Condition of the City and County of Bristol—Experimental Chemistry, by J. Emerson Reynolds, M.D., F.R.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Chicago Medical Review—Church of England Pulpit, etc.—Journal of the British Dental Association—Revue Générale d'Ophthalmologie—Revue de Médecine—Lincolnshire Chronicle—Revue de Chirurgie—Morningside Mirror—Tijdschrift voor Geneeskunde—Scientific Roll-Call—Liverpool Daily Post, February 22.

ORIGINAL LECTURES.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

By DR. MCCALL ANDERSON,

Professor of Clinical Medicine in the University of Glasgow;
Physician to the Western Infirmary, and to the Special Wards for Diseases
of the Skin.

LECTURE V.

IV.—FUNCTIONAL AFFECTIONS OF THE SUDORIPAROUS GLANDS.

THE secretion from the sudoriparous glands may be either
(1) Diminished, (2) Augmented, (3) Altered, (4) Retained.

1. *Diminished or Arrested Sudoriparous Secretion* (Anhidrosis) is usually accompanied by diminished sebaceous secretion, and produces a dry and rough condition of the skin. It may be due to want of sufficient clothing, or to inattention to the skin, or to constitutional causes. It is an accompaniment of many diseases, such as Ichthyosis, Prurigo, Marasmus, and Diabetes mellitus and insipidus; in the last two being the natural result of the profuse discharge of water by the kidneys.

2. *Augmented Sudoriparous Secretion* (Ephidrosis—Hyperhidrosis).—As is well known, this is an accompaniment of many diseases, such as the Sweating Fever (Sudor Anglicus) described as having appeared in England in the sixteenth century, afterwards spreading to the continent of Europe, and said still to exist occasionally in certain marshy districts in France and elsewhere; Rheumatic Fever; Ague, in the third stage of typical paroxysms; Relapsing Fever, at the close of the primary attack, and of each of the relapses; and Phthisis, as the result of the debility.

As an independent affection it is apt to occur in hot weather, especially in the case of corpulent persons, also from the use of stimulating food and drink, and as the result of excitement of the body or mind (fear, and the like); and some persons seem to have a constitutional tendency to perspire on the slightest causes, or even apparently without any cause at all.

Usually the perspiration is more or less generalised, but it may be partial (Ephidrosis localis), and is sometimes limited to one side of the body or face, when it is supposed to result from faulty innervation of the sympathetic.

In support of this view Drs. Eulenburg and Guttman(a) give the case of "a man, forty-four years of age, who, after even very moderate exercise, perspired profusely on the left side of the face, and occasionally also on the left side of the throat and neck. Simultaneously with the breaking-out of the perspiration the left side of the face and the left ear became red, and the temperature in the left external auditory meatus rose several tenths Centigrade above that in the right. There was also considerable injection in the vessels of the left conjunctiva, while lachrymation was sometimes more easily excited in the left eye than in the right. The left pupil was constantly more dilated than the right, but responded to the stimulus of light. . . . In the neighbourhood of the left cervical sympathetic there was some tenderness on pressure, perhaps the indication of a state of chronic inflammation of that nerve."

It is often limited to the soles, palms, axillæ, and groins, and in the last two situations, particularly, may lead to inflammation of the skin (Intertrigo).

Ephidrosis Palmaris.—Persons suffering in this way have moist, clammy, and cold hands from the rapid evaporation of the sweat: it may be so profuse, especially under the influence of nervous excitement, that little pools of it may form in the palm, or it may continually drop from the tips of the fingers. It gives rise to no pain, and is to the full as disagreeable to those who have occasion to shake hands with persons so affected, as to the patients themselves.

Ephidrosis Plantaris.—The condition here presents somewhat similar symptoms, but it is a much more disagreeable affection, because the secretion is confined by the stockings and shoes, and is apt to inflame the soles; there is, too,

maceration of the skin, which peels off, leaving them very tender. According to Dr. George Thin, the mixture of sudoriparous and sebaceous secretion with the serum which exudes, affords a suitable pabulum for a species of Bacterium, the Bacterium fœtidum, which grows and multiplies, and is the source of the offensive odour so frequently encountered in such cases—so offensive as sometimes to banish such persons altogether from society.

Ephidrosis Cruenta.—It may be well in this place to refer to that extraordinary complaint termed Ephidrosis cruenta, or bloody sweat, although it is not a perspiration at all, but an exhalation of blood from the pores of the skin. The rarity of this affection is proved by the fact that I have only observed it once in my whole experience.

On May 5, 1866, at the recommendation of Dr. J. Lindsay Mason, of Ayr, I was consulted with regard to a young lady, who, though hardly fifteen years of age, had the appearance of being a couple of years older. I am indebted to Dr. Mason's description of her case for many of the details which follow:—

Menstruation became fully established at the early age of eight, and continued regularly until she was eleven years old, when it ceased entirely. At the age of thirteen it reappeared, and continued normally until the middle of February, 1865, when it again became irregular, and about this time, Mr. Haldan, of Ayr, was requested to see her on account of "a large abrasion of the cuticle in the middle of the right cheek, suppurating in the centre, and inclining to bleed towards the circumference. This sore was exceedingly obstinate, refusing to yield to the constitutional and local treatment resorted to."

In the summer of this year she went to England, the sore being unhealed, and the menstruation very irregular. The cutaneous manifestations seem to have subsided in the month of October, coincident with which she began to menstruate regularly each month, the discharge on each occasion being profuse, and lasting about six days.

In March, 1866, Dr. Mason was requested to see her again, owing to a fresh outbreak of the eruption; and from about this time onwards until I saw her in May the menstruation was very irregular—that is to say, she menstruated for one day every week for four weeks, the discharge being, however, very scanty, after which a fortnight elapsed before the next menstrual flow, and then the weekly discharges reappeared again for other four weeks, and so on.

The only parts of the skin implicated from first to last were the face, arms, front of the chest, and legs. When I saw her I was struck by the arrangement of the round patches of eruption which were left in the sites of the hæmorrhagic attacks. One was on the brow, another on the chin, and one on each cheek. On the front of each arm also there were four in a row, two on each upper arm and two on each forearm. When the chest was the seat of the eruption, the patches also occurred in a row down the front of the sternum. It will thus be observed that the symmetry of the patches was wonderfully perfect, pointing very conclusively to the constitutional origin of the complaint. The patches were oval or rounded: some of them resembled erythema; while others were covered with crusts due to the desiccation of serum, blood, or pus, and resembled eczema.

One of the most marked peculiarities of the hæmorrhage was the suddenness of its invasion. She sometimes exclaimed, "Oh, I feel another place on my face again!" and immediately the hæmorrhage set in. One day, when Dr. Mason was dressing a patch of eruption on her face, she suddenly called out, "Oh, I feel a place on my arm!" He at once turned up her sleeve, and sure enough a large oval patch fully two inches in length and one in breadth was detected on her left forearm.

Each outbreak was accompanied by a burning pain, and for some time after the development of a patch, especially on the arms, the part was very sore, but never itchy. An oval or round red ring, varying from the size of a shilling to that of a crown, formed almost instantaneously, and the redness quickly spread inwards over the enclosed skin. As soon as seen, the patches appeared as if the cuticle had melted away, and the surface was quite wet. Sometimes the exudation was like water at first, and changed into blood; and at other times, and especially on the face, the patches were at once covered with a complete dew of blood. The hæmorrhage did not, however, consist merely of the dew of blood,—that was only at the outset,—it was actual

(a) "Physiology and Pathology of the Sympathetic System of Nerves." Translated by A. Napier, M.D. Churchill, 1879. Page 58.

bleeding as from a cut, the blood sometimes streaming down the face or other part attacked.

Sometimes, instead of blood, there was only a serous discharge, ending in suppuration. Those patches which bled most healed soonest, but before they healed (which generally took place within five or six days) both suppuration and hæmorrhage often occurred in the same place. In exceptional instances the parts did not heal for four weeks. This was especially observed on the chin. No trace of the previous eruption was left after it healed up, except on the right cheek, where suppuration was free and prolonged, and where a trifling cicatrix is left, although not sufficient to cause deformity.

At first she had not the slightest warning that an outbreak was at hand, but at the later periods of her illness Dr. Mason "observed her lean her head upon her hands, and wear an almost anxious look; and on questioning her she said she felt rather giddy, and in a quarter of an hour or less another place would break out."

There was rarely more than one attack each day, although sometimes the hæmorrhage occurred from two separate portions of skin simultaneously. It is very curious to note, too, that the outbreak generally occurred at the same hour each day (namely, at 11 a.m.), but it did not seem to be under the influence of mental or bodily excitement, or to be induced by taking food or stimulants. Occasionally it occurred in the afternoon, and sometimes a day passed without an attack.

While still suffering from this complaint, she had a severe attack of whooping-cough, which seemed greatly to aggravate the patches on her face, causing them to bleed freely. At this time also she had frequent and copious epistaxis, generally after a fit of coughing or retching, and this somewhat relieved the parts attacked.

This young lady was rather an excitable person, but her general health was good, and the bloody discharge was not sufficiently profuse to weaken her.

She had been seen by a number of medical men, some of whom, at all events, regarded the ailment as being dependent upon debility, as was evidenced by the courses of cod-liver oil, steel, etc., which were administered; but Dr. Mason and I regarded it as one of vicarious menstruation.

The treatment which was accordingly adopted was the maintenance of free action of the bowels with aloes and iron pills, especially when there was any menstrual flow, at which times she sat for about an hour in a hot mustard hip-bath, and had a few leeches applied to the insides of the thighs.

Locally, when the hæmorrhages occurred, the parts were bathed with cold water, and afterwards dusted with powder of oxide of zinc. Dr. Mason also combined with this treatment the administration of Fowler's solution, which she had been getting before I saw her, and which, at all events, did no harm; although I was rather opposed to it on theoretical grounds, as being apt to produce congestion of the skin, and to favour the outbreaks.

Within a fortnight of the commencement of the treatment directed against the disorder of menstruation, there was manifest improvement, and Dr. Mason reported that by the beginning of June the cutaneous manifestations had quite disappeared, and no traces of them were left except the slight scar previously referred to, and slight redness of the previously affected parts if she got overheated or excited. About this time, however, she had on one occasion a slight discharge of blood from the eyes. Her menstruation although considerably improved, was not well established.

On October 27, 1866, Dr. Mason reported that she remained "quite free from her old and troublesome complaint," and that her menstruation was "pretty regular," though "not quite up to the mark"; and on May 19, 1867, he reported, "The young lady is now quite well, and has been so since I wrote you last."

It is a well-known fact that discharges of blood from wounds, abrasions, and ulcers of the skin, especially in connexion with menstruation, are by no means uncommon; indeed, innumerable examples are to be found scattered through the medical literature of this and other countries; but cases such as that which I have just related, in which the sanguineous flow is altogether independent of any pre-existing cutaneous lesion, are exceedingly rare. I may, therefore, be pardoned for referring briefly to those which I

have found recorded, in the hope that they may serve still further to elucidate the subject under consideration.

Erasmus Wilson, in his valuable work "On Diseases of the Skin," (b) reports two cases of vicarious menstruation very similar to my own, one being that of "a young lady in whom a discharge of this nature took place every fortnight from four circular spots, each about the size of a half-crown, and situated symmetrically on the face; one being on each cheek, one on the forehead, and one on the chin."

He also quotes a very extraordinary case of a young woman of eighteen, who "suffered a loss of blood from 'her ears, a little after at the points of her fingers, and then at her toes; presently after at the umbilicus and corner of the eye; several times by sweat; and at length it burst out from the middle of her breast; afterwards in the foot, where the saphena is pricked in bleeding; then at both palms and back of the hands. Two days after it flowed from her chin, and in the night-time from the tip of her tongue, and all this in a fortnight's time.' Whenever it flowed from her 'breast or other parts like sweat, there was no vestige of an orifice to be seen.'"

M. Brierre de Boismont, in his work on menstruation, (c) quotes the following case from the "Médecine Pratique" of Pinel:—"Miss A. had been subject to attacks of hysteria from the age of eleven, which were followed by vomiting of blood. She menstruated at fourteen; her health was re-established, and the catamenia continued to flow regularly for several months. A sudden fright suppressed the menses, and again hysteria came on. Vicarious menstruation now occurred. The legs swelled and were covered with vesicles, and during six months blood was regularly discharged from them. The left arm swelled, and the legs recovered, and for a year there was a regular sanguineous discharge from the arm. A third deviation occurred from the left hand, which had been slightly wounded. The 'menses' flowed from this opening for six months. In the fourth year two wounds were formed on the face from an attack of erysipelas; one upon the side of the nose, the other on the upper eyelid. For two years the periodic discharge took place from these openings, and it no longer occurred from the thumb. The abdomen, in its turn, was attacked with erysipelas, and for five months regularly there was a discharge from the navel at each menstrual period. For four months the discharge proceeded from the inner ankle of the left foot; for two months from the left ear; for three from the left nipple. When the discharge did not flow from any one part, bleedings at the nose and vomitings of blood, preceded by convulsions, pains in the head, and giddiness, took place. After remaining some time at the Salpêtrière, the health of this young female improved, and regular menstruation was established."

In the *Lancet* for March 2, 1861, a very curious case which came under his care is related by Dr. T. K. Chambers, of which the following are the most salient points:—

The patient was a young woman, the subject of suppressed menstruation, who "constantly suffered from want of appetite, cough, pains in the chest, and a feeling of debility," although her appearance was that of robust health, and who, at the age of twenty-three, became the subject of a cutaneous eruption on the face, the development of which is thus described:—"She feels first a peculiar soreness and tenderness of an isolated spot, which enables her to predict that in the course of a few hours an eruption is going to commence. The first appearance of this is an erythematous blush, sometimes slightly raised above the surrounding surface, but not so much as in erysipelas. After an uncertain time, seldom more than a few hours, there may be detected a scattered crop of fine vesicles, like sudamina, mixed with a fine serous dew, uncovered by any pellicle. This never lasts long enough to form colourless drops, for quickly it becomes blood-stained, and then little points of blood are seen oozing out, sometimes so slowly as to dry and form a scab, sometimes collecting into great thick gouts, and trickling in a ghastly way down her face." If left alone to dry into a scab, the bleeding "stops in a week or ten days, usually, however, to be succeeded, before it is quite recovered, by a similar eruption in another place. Sometimes, at irregular periods, there was an interval of a week or a fortnight: sometimes the cutaneous phenomena were replaced

(b) Sixth edition, page 821. London: Churchill.

(c) "De la Menstruation considérée dans les Rapports Physiologiques et Pathologiques." Paris, 1842.

by bleeding from the nose, but never by hæmorrhage from either lungs or bowels. These symptoms continued nine months, and were relieved by anticipating the eruption of blood with leeches applied to the spot where it was expected. The discharge became serous, then was like little blisters, and finally ceased, when her health was re-established by the sea air of Margate."

In September, 1860—that is four years from the commencement of the first attack—she was admitted into St. Mary's Hospital with similar symptoms; but on this occasion the face was not attacked. "When she lies down much in the day," writes Dr. Chambers, "that, indeed, is almost always the locality where it has appeared; but when she is about, the legs and thighs have exhibited like appearances; both forearms too, and once the chest, were attacked." The fluid exuded "contained bloody discs, . . . much granular matter, dark fatty-looking specks, and scales of epidermis." Blood drawn from a prick in the finger looked perfectly natural. On two occasions she threw up from the stomach about half a pint of dark brownish-purple sanguineous fluid; and occasionally her pocket-handkerchief was stained with blood, reported to have come from the nose.

"She was bled three times," writes Dr. Chambers, "and after each bleeding successively there was a decided improvement in the quantity and quality of the eruption. Four times there were leeches applied to the groins, but I could not trace any benefit to that. But when leeches were applied to the spot affected, they certainly arrested the hæmorrhage at that spot, and diminished its future violence elsewhere. She had leeches applied in this way, to one place after another, thirteen times during the month of December, making seventy leeches in all, in addition to twenty-four ounces of blood taken by venesection. Yet, though blood-letting has been thus freely employed in the way most calculated to cause debility, namely, in small and repeated quantities, she has gained power and vigour, got less hysterical, and improved in every way, at the same time that her cutaneous hæmorrhage has been gradually diminishing. For a few days while convalescing she had a spontaneous diarrhœa."

Contemporaneously with blood-letting, aloes and oleum sabinæ, in various doses, were employed, and consequent upon that treatment, about five weeks before she left the hospital, the catamenia occurred once and flowed for five days. No immediate lessening of the cutaneous hæmorrhage followed the establishment of the uterine function; it had begun to improve before, and continued to improve after it, so that by the beginning of February, 1861, it had ceased altogether.(d)

Chambers cites two cases from the *Archives Générales de Médecine*, 1829 (t. xix., pp. 112 and 113)—one of a young lady, who, after ten years' suppression, menstruated for three years through a vesicular eruption in one finger; and the other of a prostitute, in whom the discharge occurred through spots of the size of a five-franc piece, which appeared from time to time, one after another, on the breast, in the axilla, on the back, the buttocks, and the epigastrium. "The description of this case," writes Dr. Chambers, "accords closely with that of our patient, especially in the eruption being less periodical and more continuous than happens in most vicarious menstruations. The uterus also was healthy, for she became pregnant and bore a child."

Chambers also quotes from Hensinger(e) the case of a woman who had diseased ovaries and recto-vesico-vaginal fistulæ, in whom, although the catamenia sometimes appeared at the proper place, they were generally arrested there, and appeared in a variety of parts of the external skin, but especially on the face. She had suffered five years, was very hysterical, and had been in several hospitals.

Besides the above, cases have been related by A. Finol,(f)

(d) In a letter dated July 29, 1867, Dr. Chambers wrote me as follows:—"Shortly before my illness in the spring of '64, I saw the young woman. . . . She had experienced occasional attacks of hæmorrhage from the skin during the interval since I last saw her, but could always keep them off if she could get some leeches at the right time. She came then to ask for some leeches, for which I gave her a sort of general order. She distinctly said that she always found herself stronger after artificial loss of blood. I observed in her one thing which I did not, I think, notice in the lecture—namely, a peculiar livid injection of the conjunctivæ before the skin became affected."

(e) Schmidt's *Jahrbuch*, 1836.

(f) "Observation d'une Dégénération telle que le Sang transsuda par la Peau"; Sédillot, "Recueil périodique de la [Soc. de Méd. de Paris]," xix., page 71.

Schilling,(g) Lcuhossek,(h) Voigtel,(i) Van Swieten,(k) and others, but space will not permit of my alluding to them further.

It must not be supposed that all cases of hæmidrosis are connected with derangements of menstruation. That such a conclusion is erroneous is proved by the fact that it has been observed in adult males and in infants. Thus Hebra(l) tells us "of a young man, strong and well-nourished, who was attacked repeatedly by hæmorrhage from the surface of the lower limbs. This generally occurred during the night, so that he first became aware that the bleeding had taken place by finding the sheets stained with spots of blood when he awoke." "I once, however," continues Hebra, "saw blood flow from the injured back of the hand of this patient while he was sitting near me at table. The blood formed a jet, which would about correspond in size to the duct of a sweat-gland. This jet had also a somewhat spiral form, and rose about 1" above the surface of the skin."

Beneventus, too, has recorded the case of a man who discharged blood once a month from his right side.(m) And M. du Gard(n) has described a case, quoted by Erasmus Wilson(o) of a child three months old that was "taken with a bleeding at the nose and ears, and in the hinder part of the head, which lasted for three days, and afterwards the nose and ears ceased bleeding, but still blood like sweat came from the head. Three days before the death of the child, which happened the sixth day after it began to bleed, the blood came very violently from its head, and streamed out to some distance. It also bled on the shoulders and at the waist;" "it bled also for three days at the toes, at the bend of its arms, at the point of the fingers, and at the fingers' ends."

From a study of the recorded cases of Ephidrosis Cruenta—a title, by the way, which was given to the disease by Dr. Mason Good, but which is singularly inappropriate, for the discharge is a hæmorrhage, and not a perspiration tinged with blood, as some have supposed—the following conclusions may be drawn:—

(1.) Discharges of blood from the skin, apart from wounds, abrasions, ulcers, and the like, are exceedingly rare.

(2.) In some cases such discharges are preceded by the development of oval or round patches of erythematous inflammation; in others, by the eruption of crops of vesicles, such as I once saw in an instance of milky (white fibro-serous) discharge from the leg; while in a third class of cases the hæmorrhage comes from the follicles without any intervening eruption.

(3.) The disease occurs most frequently in females, and in connexion with amenorrhœa or defective menstruation, being, in fact, a species of vicarious menstruation.

(4.) That such is its invariable pathology, however, is disproved by the fact that it has been known to occur in infants and in adult males.

(5.) That the treatment by means of nourishing diet, stimulants, and tonics, on the supposition that the hæmorrhage is due to debility and deterioration of the blood, is unsuitable in the majority of cases.

(6.) That, on the other hand, an opposite line of treatment—and especially the abstraction of blood, local or general, or both—is much more likely to prove serviceable, and to stop the discharge.

(7.) That when the disease occurs in the female in connexion with anomalies of menstruation, these must be corrected by the usual means.

Referring to the bloody sweat of Christ, the celebrated Dr. Mead makes the following observations (p):—"St. Luke relates of Christ Himself that, when He was in an agony by the fervency of his prayers, His sweat was like drops of blood falling down on the ground. This passage is generally

(g) "De Sudore Sanguineo, post Graves Convulsivos et Spasmodicos Affectus erumpente, Feliciter tandem Sublato"; "Acta Acad. Nat. Cur.," vol. iii., page 425.

(h) "Physiologia Medicinalis," vol. iii., page 352.

(i) "Stark's General Pathology," page 1131.

(k) "Commentaries on Boerhaave," sec. 1286.

(l) "On Diseases of the Skin." By Ferdinand Hebra, M.D. Translated and edited by C. Hilton Fagge, M.D. The New Sydenham Society, London, 1866.

(m) "Van Swieten's Commentary on Boerhaave," vol. xiii., sec. 1286.

(n) "Medical Essays, abridged from the *Philosophical Transactions*," vol. i. page 52.

(o) "On Diseases of the Skin," by Erasmus Wilson, F.R.S., sixth edition, page 820. London: Churchill.

(p) Medical Works of Richard Mead, M.D. London, 1762. Page 630.

understood as if the Saviour of mankind had sweated real blood; but the text does not say so much. The sweat was only ὡσεὶ θρόμβοι αἵματος, as it were, or like drops of blood—that is, the drops of sweat were so large, thick, and viscid, that they trickled to the ground like drops of blood. Thus were the words understood by Justyn Martyr, Theophylactus, and Euthymius."

ORIGINAL COMMUNICATIONS.

THE CASE OF McMANN.

By RIDLEY DALE, M.R.C.S., L.R.C.P. Ed.

AN article appeared in your issue of the 11th inst., by Mr. Brudenell Carter, entitled, "The Case of McMann," in which he says, "I think the medical witnesses who deposed to the genuineness of McMann's paralysis owe it to the profession to explain what is the probable nature and the probable seat of the disease." Being thus challenged, I feel it my duty to put forward my view of the case. It seems to me that Mr. Carter, who was engaged by the North-Eastern Company as a medical expert, and was prepared to give evidence on their behalf, would have shown better taste and good feeling had the article been written in a less partisan spirit, and confined to the medical points of the case alone. The facts, as stated by Mr. Carter, are not always correct. The first inaccuracy to which I must allude is that he says, in his description of the accident, "Except the two children mentioned, no passenger made any complaint." Now, as a fact given in evidence by the company's witness, Mr. Clark, a woman not only complained, but obtained £10 damages from the company in settlement of her claim. This clearly shows that there was an accident, and McMann was not the only person injured in it. Next, Mr. Carter cannot see any reason why the defendant should have "slithered down" in the manner described—hinting, I suppose, that McMann had instantly made up his mind to act the part of a malingerer when the accident occurred, and so slipped down on purpose, or else that the man never slipped down at all. However, this part of the case was proved by the witnesses for the prosecution, Matthew Adams and Joseph Gray, who said, "he struck his back against the edge of the seat," and, according to Gray, said, "Oh, my back!" Another important omission is that various witnesses for the prosecution testified that McMann complained of his back directly after the accident. Gray's evidence is, "McMann complained of his back as soon as the collision occurred; he told me he was in great pain, and appeared to be suffering." Also, "On his way to Dr. Abrath's surgery he said, 'Oh, Joe, my back is bad.'"

Mr. Carter seems to think that a paralytic lesion cannot arise from a slight accident. Professor Erichsen, however, in his well-known work on "Concussion of the Spine" following railway accidents, writes to this effect (page 155):—"One of the most remarkable circumstances connected with injuries of the spine is, the disproportion that exists between the apparently trifling accident that the patient has sustained, and the real and serious mischief that has in reality occurred, and which will eventually lead to the gravest consequences. Not only do symptoms of concussion of the spine, of the most serious progressive and persistent character, often develop themselves after what are apparently slight injuries, but frequently when there is no sign whatever of external injuries." Erb, "Diseases of Spinal Cord," vol. xiii., page 357, gives a case of a young lady who slipped and fell on a polished floor, coming down on her seat. Doubtless, Mr. Carter would say she ought to have picked herself up again, and he will not be able to conceive that anything more could have happened. Unfortunately, in a quarter of an hour she was paralysed, and was not convalescent for two years. Wilks, "Diseases of Nervous System," page 237; Bryant's "Practice of Surgery," vol. i., page 263; and Erb "Diseases of Spinal Cord," page 350, speak in a similar manner.

Next I must allude, *en passant*, to another inaccuracy of Mr. Carter's. He writes:—"In this field, he (McMann) met a friend or friends who advised him to consult Dr. Abrath, who was known to have had experience in railway cases." Let us take Gray's statement, who said, "We all

remained in his room some time, and ultimately induced him to let us take him to Dr. Abrath's"; and McMann's brother, another witness for the prosecution, who said, "I advised him to go to Dr. Abrath, because he had once attended me; and from the confidence I had in Dr. Abrath, I advised my brother to go to him." A lay contemporary says, writing on this very point—"If we are not mistaken, an insinuation was thrown out that Dr. Abrath 'had acquired a reputation in connexion with actions which had been brought against the company.' If such a statement were made, the innuendo was far more damaging to the prosecution than to Dr. Abrath, since it revealed an obvious solecism. The case was tried—as all such cases are—on its own merits; and whatever Dr. Abrath's antecedents were, the jury had certainly nothing to do with them. Had those antecedents been the subject of investigation, there is no reason to suppose that he would have emerged from the ordeal with less distinction than was accorded to him at the close of the trial. His experiences during the Franco-German campaign, as a member of the medical staff of the German Army, laid the foundation of his reputation as a first-rate operator, in which capacity he has since risen to prominence; and it is, perhaps, not surprising that his skill in this direction should have marked him out, in the crowd of professional men, as the most desirable person to consult in the case of accidents on the railway and elsewhere."

We now come to the medical evidence for the prosecution. Mr. Jeaffreson furnished a report of his first visit, October 4, 1880, to this effect:—"His present symptoms are a feeling of constriction round the waist, aching in the limbs, dizziness, inability to take his food, and pains in the back, which shoot down the limbs. At one time he had a frequent desire to make water, but now he only makes it once or twice a day; and formerly there was constipation, but now the bowels are regular. Expression natural; tongue clean; pulse 75, regular, but feeble; heart sounds normal; urine small, quantity passed clear and perfectly normal. The whole of the back discoloured by the application of mustard-poultices. Upon the spine traces of numerous scars of leech-bites. On the lower part of the back, and on each side of the commencement of the fold of the nates, was an oval patch of superficial ulceration." Mr. Carter writes:—"The urine was said to be phosphatic—a point which the medical advisers of the company never had an opportunity of observing." Mr. Jeaffreson, as he said in evidence, not only had the opportunity, but did actually examine the man's urine.

Mr. Carter omits to state that after Mr. Wheelhouse's examination he made a report, October 11, 1880, in which he said: "Whatever the man's story may have been in the first instance, at the time of my visit he presented certain objective symptoms which I could neither gainsay nor ignore—the pulse weak, irregular, 104; heart acting feebly and irregularly; temperature 99.2°." In evidence he said: "I thought the man in falling had probably struck his back, and wrenched it, and that he was suffering from a wrench of the vertebral column." Mr. Wheelhouse also asked the company to allow him to see the patient again, at an interval of a few weeks, "so as to obtain material for a more certain conclusion." Mr. Carter says this would not have been permitted, but as Mr. Skinner, the solicitor for the defendant, had written to the company, offering to let the case stand over for two years, to see the result, I feel sure permission would have been granted; but it was never asked for, nor did the company reply to Mr. Wheelhouse's request.

Here I must allude to the sores, which, by themselves, everyone admitted had no surgical importance. Mr. Carter seems to think that it was very strange they should be so long in healing. I must here again quote a passage from Erichsen, which appears to me to have an important bearing on the case ("Concussion of Spine," page 232):—"It need scarcely be said that any ordinary surgical injuries to the head, trunk, or limbs may complicate the effects of a concussion of the spine. There is this important practical point connected with them—that in consequence of the depressed vital power of the limbs, their coldness, the feebleness of the circulation, and the loss of innervation, repair of injury in these cases is far slower than under ordinary circumstances. This is especially the case in the lower extremity. Wounds, even though of a very superficial character, being little more than mere abrasions, will heal very slowly—months being occupied in the repair of a lesion."

that in a strong and healthy person would require only weeks." The wounds did not heal up until *four months* after the compensation was paid. The next point I must touch on is the condition of the urinary organs. There was irritability of the bladder, but no paralysis of that organ, and the urine retained its acidity. Is this remarkable? "Concussion of the Spine," Erichsen, page 172:—"The condition of the genito-urinary organs is seldom much deranged in the cases under consideration, as there is usually no paralysis of the sphincters. Neither retention of urine nor incontinence of flatus and fæces occurs. Sometimes, however, irritability of the bladder is a prominent symptom. The urine generally retains its acidity, sometimes markedly, at others very slightly so. As there is no retention it does not become alkaline, ammoniacal, or otherwise offensive." With regard to constipation (Erichsen, pages 187 and 167), "there is usually constipation in consequence of loss of power in the lower bowel. The reflex test was applied by Mr. Jabez Hogg and myself just before the magisterial investigation (fifteen months after injury), with the result that we found it somewhat diminished in both legs. I tested the ankle clonus, and found it absent. The pulse is deserving of notice. Mr. Carter considers that it should have been quicker than 75 when Mr. Jeaffreson made his first examination. Erichsen (page 172) says, "The pulse varies in frequency at different periods. In the early stages it is usually slow." With regard to the electric test, my report, which follows, shows how I examined the defendant, and the results obtained.

Examined McMann on December 24, 1881, Drs. Francis and Potts being present:—Temperature 99°0'; pulse 80, feeble and irregular. Battery used was Traube's improved modification of Dr. Spamer's induction apparatus. The battery has two cells and Grenet's elements.

(a) To test the cutaneous sensibility I employed a wire brush and a sponge rheophore moistened, the skin being dry and powdered. With strength 1 on the regulator attached to the movable cylinder of the battery, using both the cells, patient had no feeling in either limb. With strength 2, patient felt slightly with left leg, but not at all with the right. With strength 3, patient felt well with the left leg, and slightly with the right. Strength 4 caused pain in the left leg, and was well perceived by the right.

(β) To test muscular contractility under the electric stimulus, the skin having been washed and well moistened with warm salt-and-water, two large sponge rheophores wet with hot salt-and-water, and held in one hand, were applied alternately to the corresponding muscles at the front of the two thighs. With strength 1 no effect was produced. With 2, contraction occurred in the left leg, but not in the right. With 3, strong contraction occurred in the left, and slight flickering contraction in the right. With 4, contraction occurred in right extensors. In place of one of the sponge electrodes, I then put a small olive-headed metal rheophore, covered with wash-leather, and wetted with warm salt-and-water, and a dish-shaped metal rheophore, covered with wash-leather, and wetted, for the other. The disc rheophore was applied to the anterior crural nerve in the groin, and the small metal rheophore to the motor points of the various extensor muscles at the front of the thigh; the test being alternately applied to the left and right legs. The results were similar. On testing the flexor muscles of the knee by both these methods, strength 2 caused contraction of flexors at back of left thigh; but only on using strength 4 was the slightest contraction obtained in right flexors.

Measurements taken with steel measure, six inches above upper border of patella: right, fourteen inches and a half; left, fifteen inches and a quarter. Mr. Francis verified these results.

Mr. Carter says that in my examination-in-chief I "volunteered the statement that the induced current is of great value as a means of distinguishing between real and simulated paralysis, but that it is of small value as a means of localising the lesion upon which a real paralysis may depend." This is not correct. The following passage was read to me in cross-examination, from "Diseases of Spinal Cord" (Erb), vol. xiii., page 105:—"In fact, the electrical examination seldom gives decisive evidence." And my answer was, that Erb was referring to the nature and probable location, and not to electricity as a test for loss of motor power in a limb. This is evident from the context. The whole passage runs:—"In fact, the electrical examination seldom gives decisive evidence, to enable us to place the

seat of a disease in the cord, or brain, or peripheral nerves; this can only be done under certain conditions." Mr. Carter denies that electricity is of use in detecting malingerers. I can only refer him to such high authorities as Althaus' "Medical Electricity," pages 454, 547; Reynolds's "Clinical Uses of Electricity," pages 32-34; Poore's "Electricity in Medicine and Surgery," page 102; Erichsen's "Spinal Concussion," page 292; Roberts's "Handbook of Medicine," page 676; and others. Mr. Carter says he would fix one sponge at the nape of the neck; and, no doubt, that is an excellent way; but I think the methods I adopted—which are those recommended by Duchenne ("Localised Electrification," page 75), Ziemssen ("Die Electricität in der Medicin," page 136), Reynolds ("Clinical Uses of Electricity," page 93),—preferable. When I obtained so marked a difference in the response of the muscles of the two legs to the electric stimulus, I was satisfied that this was something that the patient could not feign—which, in Erichsen's words, "might be taken by itself, and independently of any other sign, symptom, or abnormal manifestation, as being absolute and irrefragable evidence of paralysis of that limb consequent on spinal lesion." I may say that the induced current had been applied, as I learnt from the patient, for a period of several months as a remedial agent by Dr. Abrath, who is known to be a competent electrician, and also in consultation with Drs. Philipson and Heath, not only before, but since the trial.

Why did I not use a continuous current? Firstly, because the continuous current cannot be so accurately localised as the induced, is a powerful irritant to the skin, and exposes the operator to a risk of over-stimulating the muscles and nerves, and increasing the paralytic symptoms. I should no more think of applying a continuous current to a patient in whom symptoms of inflammation of the spinal cord were still present (severe pain in back, girdle pain, giddiness, pain in head), than I should apply a red-hot iron to an inflamed conjunctiva. Secondly, because, had it been admissible, I should have obtained no more information than I could by the induced current. The degenerative reactions of Erb, if present at the commencement, would have disappeared when I examined the man fifteen months after the accident.

The convulsive attack which the man had when he was brought into the police-court was witnessed by Mr. Potts, who asked Mr. Wheelhouse to see the man. He declined, saying that he considered Mr. Potts as capable as he was. The man had been hurriedly dragged out of bed under a warrant, thrust into his clothes, and jolted in a cab. Can we be surprised that he had a convulsive attack, during which his pulse was 120? Erb ("Diseases of the Spinal Cord," vol. xiii., page 256, under the head of "Leptomeningitis Spinalis Chronica") says:—"Tremblings of the extremities, twitchings of certain muscles, sudden starting of the body, involuntary drawing up or extension of the limbs, are not rare." Erichsen ("Spinal Concussion," page 304) says:—"The occurrence of convulsive movements is a most unfavourable sign. They indicate the existence of chronic myelitis, and are usually associated with deep disorganisation of the structure of the cord. They are of a most painful character, and are apt to be excited by movements and shocks of the body, even of a very slight character." Wilks ("Diseases of the Nervous System," page 214) gives a case of paraplegia with tremors, increased when any effort of will was directed upon the legs. He also gives cases, on pages 213 and 214, of spasm and rigidity, only paroxysmal, and induced by some outward form of stimulus. Mr. Carter writes:—"On all subsequent occasions he was carried in the same manner, but with his legs hanging down from the knees, until ultimately a stretcher was procured for him, and he was carried in a 'recumbent posture.'" Now, after the first hearing, when the man was jostled about in a cab, without that care and attention which any sick person requires, there was an adjournment for a week, during which time the man was under my care, and exhibited cerebral symptoms, giddiness, severe headache, and photophobia, with a temperature varying from 104° to 99°, and it was under my advice, after consultation, that on the next and all subsequent occasions he was carried on a stretcher. To summarise: A healthy man in a slight railway accident receives a blow on the back; he complains of pain in the back at the seat of the last dorsal and first and second lumbar vertebræ, tries to proceed about his usual avocations for two days, but is then compelled by the pain

to seek medical advice; is ordered to bed. Symptoms at first are vomiting, giddiness in head, sleeplessness, girdle pain. These are followed by shooting pains in the limbs and a feeling of pins-and-needles and numbness in the legs, constipation, irritability of the bladder, coldness of extremities. To these succeed loss of motor power and loss of weight; diminution of electric irritability, more marked in one leg than the other; diminution of cutaneous sensibility; diminished reflex movements; atrophy of muscles, more marked in one leg than the other. These symptoms, together with the history, can only point to chronic meningo-myelitis following concussion, the result of a traumatic injury to the spinal column.

PAROXYSMAL HÆMOGLOBINURIA.

By ROBERT SAUNDBY, M.D. Edin., M.R.C.P. Lond.,
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THIS disease is characterised by the passage of hæmoglobin in the urine, accompanied by acute phenomena, recalling, in some respects, an attack of ague. The best general descriptions have been given by Dr. Wickham Legg(a) and Dr. W. Roberts,(b) but these are now some years old. The presence of hæmoglobin in the urine has been observed in septic, pyæmic, and putrid fevers, and in some extreme cases of scurvy and purpura, but in the condition now under consideration this symptom may supervene suddenly in apparent health, and disappear as rapidly as it came.

History.—Dr. Wickham Legg says that the disease was fully described by Dressler in a paper published in *Virchow's Archiv* in 1854, but nothing was known of it in this country till the publication of two cases by Dr. Geo. Harley,(c) under the title of Intermittent Hæmaturia. Dr. A. Hill Hassall(d) almost simultaneously described it as Intermittent or Winter Hæmaturia. Later on, Pavy(e) called it Paroxysmal Hæmaturia. As it came to be recognised that blood-colouring matter, and not blood corpuscles, was present in the urine, it acquired the name of hæmatinuria, and in 1872 it obtained its present name in the title of a paper by Professor Lebert,(f) from the discovery by Gschleiden that the spectroscopic appearances showed the urine to contain, not hæmatin, but hæmoglobin, or met-hæmoglobin. Mesnet, writing last year, has suggested the title of hæmoglobinuria à frigore, but this suggestion has not yet been followed.

The cases, three in number, which have come under my own observation have been described in the *Medical Times and Gazette* (May 1, 1880, and February 4, 1881).

Description of Attack.—Its clinical features vary somewhat, but the following may be taken as a typical example of what occurs. A young man, in fairly good health, while undergoing considerable bodily exertion on a cold winter's day, is suddenly seized with shivering, lassitude, and great sense of weakness, followed by a desire to make water; on voiding urine he is astonished to notice that it appears to contain blood. He takes to his bed, and continues for some days to pass dark-coloured urine, but with careful nursing and rest he gradually recovers, but is henceforth liable to relapses, especially during the winter months.

The previous general health is usually good, but there is not infrequently a tendency to digestive derangement; and in some cases follicular stomatitis and pharyngitis, hepatic derangement, and constipation have been noted, with sometimes vomiting at the commencement of the attack.

The attacks are sometimes preceded by a distinct rigor, at others by yawning, formication, and headache; the temperature occasionally falls below the normal, in one case being 96.1° Fahr. in the axilla, with lividity of the hands, feet, and ears.

Symptoms.—The skin and conjunctivæ have been observed to be of a peculiar dusky colour; some patients have been described as jaundiced. The body temperature varies very much in the different cases recorded. The earlier descriptions said nothing of any rise in temperature or denied it.

But Greenhow(g) records a temperature of 103.2° in his first case; Beale(h) records a similar temperature. Druitt,(i) in his careful descriptions of his own case, says that he suffered on several occasions from feverish attacks, with a rise of temperature to 103° Fahr., and splenic enlargement, but that on all other occasions, even during the passage of hæmoglobin, the temperature was quite normal. In two cases which have come under my observation the temperature has been elevated during the attacks, in one reaching 102° Fahr. in the other 105.2° Fahr. There is often perspiration, though this may not be general, but confined to certain localities, thus in Rosenbach's(k) case the sweating was chiefly in the forehead, and in one of my cases the patient complained chiefly of the profuse perspiration of his hands.

The observations on the temperature variations in these cases are still incomplete; it is probable that differences exist. In my cases there was no complication to cause the rise of temperature, nor was there the least reason to suspect the fever to be of malarial origin. In one of my cases there is reason to believe that the temperature reached a daily maximum of over 104° Fahr. for at least a week, during the whole of which period the urine was dark.

Headache and a tendency to sleep are the only nervous phenomena hitherto described, but in one of my cases the attacks have been at times associated with mental aberration, bordering on acute mania.

The heart and lungs usually present no abnormal physical signs, but in my first case(l) the heart's apex was to be felt in the fourth intercostal space, with a loud systolic murmur at the base, propagated into the neck, and a loud *bruit de diable* in the jugulars.

The liver and spleen have been described as enlarged. In the case just referred to the spleen was enormous, the limits of percussion dulness in its long axis being ten inches and a quarter; it reached beyond the umbilicus, was round, tense, and tender. In another case no hepatic or splenic enlargement could be detected, nor any tenderness in the hypochondria.

The state of the blood has been recorded in a few cases generally with a negative result, though in a few an increase in the white corpuscles is recorded; in my first case, in spite of the anæmia and splenic enlargement, there was only a slight relative excess of leucocytes over the coloured corpuscles.

As the examination of the blood is very much a matter for experts, it is satisfactory to be able to quote the report of Professor Hayem on the case recorded by Mesnet.(m) The blood was examined before, during, and after the attacks, and he states that it presented the appearances of the blood from a case of slight anæmia, while the tendency to the rapid formation of fibrine in the blood taken during the paroxysm, recalled the characters of the blood of patients suffering from some inflammatory disorder; but this has been seen in other hæmorrhagic diseases, such as purpura and scurvy. The examination of the corpuscles gave results such as are met with in all anæmic blood. During the paroxysm there was a slight increase of white corpuscles, and a relative diminution of the red; and two days after the attack there appeared a crop of hæmatoblasts and dwarf globules, indicating a degree of activity in blood formation which was greater than would be looked for after a hæmorrhage apparently so inconsiderable in amount.

More recently M. Hayem has stated that he has assured himself that the plasma of the blood extracted by cupping during an attack contained a certain quantity of hæmoglobin.

The state of the urine is necessarily the point upon which observations have been most minute. Great variations appear to exist as to the time during which the hæmoglobin persists in the urine. Thus, in a case recorded by Gull,(n) although the attack lasted for several days, the morning urine was always dark, but after 1 or 2 p.m. it became clear. It is quite possible that guaiacum and ozonic ether would have revealed a certain amount of blood-colouring matter in this apparently clear urine. In other cases the urine may remain dark for weeks together.

In two cases which I see from time to time, there is always

(a) "Paroxysmal Hæmaturia." *St. Barth. Hosp. Rep.*, 1874, vol. x., page 71.

(b) Reynolds' "System of Medicine," vol. v., page 467, and "Urinary and Renal Diseases," 1876, page 141.

(c) *Med.-Chir. Trans.*, vol. xlviii., page 161.

(d) *Lancet*, vol. ii. 1865, page 369.

(e) *Lancet*, vol. ii. 1866, page 31.

(f) *Berliner Klin. Woch.*, May 13, 1872.

(g) *Olin. Soc. Trans.*, vol. i., page 40.

(h) *Practitioner*, vol. ii. 1868, page 73.

(i) *Med. Times and Gaz.*, vol. i. 1873, pages 403, 461, 489.

(k) *Berliner Klin. Woch.*, October 28, 1878.

(l) *Med. Times and Gaz.*, May 1, 1880.

(m) *Arch. Gén. de Méd.*, vol. i. 1881, page 513.

(n) *Gu'y's Hosp. Rep.*, vol. xii., page 381.

a certain amount of blood-colouring matter present, quite readily discoverable by the guaiacum test. The mother of these patients says she never knew their urine to be clearer than certain specimens which I have seen, and which undoubtedly contained hæmoglobin, but no albumen.

The colour of the urine varies from porter-colour to mere smokiness; or it may be, as above suggested, and as I have seen it, apparently clear, yet giving a distinct reaction with the tests for blood-colouring matter. It deposits, on standing, a variable amount of brown flocculent matter, which, under the microscope, is seen to consist of urates, oxalates, under-casts of the tubules of the kidney, granular and hyaline casts, and what looks like the detritus of blood corpuscles. Oxalates are not always present; Gull found crystals of hæmatin, but this is exceptional. In Rosenbach's case, already alluded to, the urine contained albumen before it became dark. The reaction of the urine is almost invariably acid; its specific gravity varies. Gschleiden(o) was the first to show, by means of the spectroscope, that the colouring matter present is really hæmoglobin; and this has been confirmed by other competent observers,(p) although dissented from by Dr. Thudichum.(q)

With the microscope, either no blood corpuscles or only a few have been found. Dr. Wickham Legg states that in one case under his observation there was no difficulty in recognising many red blood corpuscles in the urine when recently passed, but that on the following day after standing not one could be found.

The earlier writers maintained that the albumen present was peculiar, by dissolving readily in excess of nitric acid, and Gull suggested that it was globulin. This suggestion appeared to be worth investigating. I have endeavoured to do so by precipitating the urine with sulphate of magnesia, so as to get rid of all the para-globulin present. The results of several experiments showed conclusively that serum albumen was present in addition to para-globulin.

In Forrest's(r) case the albumen persisted in the urine in spite of the absence of any obvious amount of hæmoglobin, and in one of my cases albumen has persisted, more or less, for years, without other signs of kidney-disease. Professor Jacobi,(s) of New York, has observed a similar persistence of albuminuria in a case under his care.

The question of the persistence of traces of albumen and hæmoglobin during the intervals is of interest, and should be looked for.

During the paroxysm the urine contains blood casts, hyaline, and granular casts, and sometimes epithelial casts, but these disappear rapidly and are not found during the intervals.

According to Dr. Wickham Legg the amount of urinary water passed during twenty-four hours is slightly increased, while the urea is a little below the average.

Indican has been found, and is probably often present in excess, as Virchow found a large quantity of blue pigment in Dressler's case.

Etiology.—The cause of this disorder is obscure. Age and sex seem to have only slight influence. It has been met with as early in life as two years, and as late as fifty-four. It is most common perhaps in young adults. When Dr. Wickham Legg wrote, only one case had been described in a female, but I can add at least two others—one published by Dr. Adam,(t) and one of my own.

The only instance of heredity is that furnished by my own published cases, in which the father and at least two children have suffered. Occupations seem to have no special influence, except as they expose the individual to cold. No rank in society seems to be exempt from the predisposition.

The exciting cause is almost invariably a chill, by wet feet or some such common mode; hence Mesnet's proposal to designate it *à frigore*, and from its greater frequency in winter the justice of Hassall's title, winter hæmaturia. An apparent exception to this rule is to be found in Rosenbach's case, as the attacks were more common in summer than in winter; but it turned out that the parents kept the boy in a warm room in the winter, while in summer he was allowed to go about and play.

Sir William Gull has stated that bodily exertion by walk-

ing too much, or lifting a weight, seems to increase the disorder. The influence of injuries is of interest. Sir W. Gull has described the case of a young lady, who fell and hurt her back on getting into a railway-carriage, and shortly afterwards passed bloody-looking urine, containing only disintegrated granular matter. Rosenbach's case supports the notion that the disorder may have a traumatic origin, as a fall from a waggon was apparently the exciting cause of the first attack, although when the predisposition was fully established, the attacks were readily induced by exposure to cold. Botkin also has published a case in which a fall from a horse preceded the first attack.

In several of the cases there has been a history of ague preceding the urinary derangement, but it is exceptional. A few cases have resided for a length of time in a hot climate.

It is stated on doubtful authority to be common in India, but no evidence has been afforded of the truth of this statement. As in this climate the disease appears to be so dependent upon cold, it would be of great interest to know whether it does occur in India, and if so, what is the exciting cause.

The connexion which appears to exist between this disorder and liver derangement has struck most observers. Jaundice has been present in many of the cases, and other evidences of hepatic derangement and disturbances of the digestive system are common.

Syphilis and rheumatism have been noted in the history of a few patients.

Pathology.—The morbid anatomy of this disease is quite unknown, as it has never proved fatal, and so far no one has recorded the post-mortem appearances found in the body of a person known to have suffered from this peculiar malady during life.

The fact that repeated attacks are not incompatible with fair general health, and have never been known to cause death, precludes our entertaining the view maintained by Sir William Gull that there is organic disease of the kidneys.

It obviously resembles a vaso-motor neurosis produced by the paralysing influence of the chilling of the external surface, as surmised by Pavy, Roberts, and Laycock.(u) When the plexus renalis is cut, hæmaturia follows as a consequence of the increased pressure on the renal capillaries. But such an explanation, while accounting in a sort of way for hæmaturia, does not afford any reason for the presence of hæmoglobin without blood corpuscles which so distinctly characterises this affection.

Hæmoglobinuria may be produced artificially by injecting various substances into the blood, or even by introducing the blood of an animal of another species.

It is known that the blood corpuscles are dissolved in water, for example, but it is doubtful whether water injected into the veins causes albuminuria and hæmoglobinuria by simply dissolving the corpuscles.

Schwahn(v) states that dilute solutions of glycerine, consisting of equal parts of glycerine and water, when injected into the cellular tissue or intestine, produce hæmoglobinuria.

Neusser(w) found that naphtol in large doses produced hæmoglobinuria in dogs and rabbits while Baumann and Herter have obtained similar results with azo-benzol, a substance intermediate between aniline and nitro-benzol. Saarbach has produced hæmoglobinuria with nitro-benzol. Marchand has shown that met-hæmoglobin may be formed in the blood by the action of chlorate of potash; and a case of hæmoglobinuria from the latter cause has been recorded by Dr. Dreschfeld(x) and Mr. Stocks of Manchester.

These facts, though interesting in themselves, do not throw much light upon the problem of hæmoglobinuria.

But it is much more to the purpose that we know that bile acids have the power of dissolving the blood corpuscles whenever they come in contact with them; and there are many facts that point to the probability that it is to this agency that the disintegration of the corpuscles is in fact due.

It is quite probable that the liver disorder may be part and parcel of the vaso-motor neurosis, which likewise affects the kidneys.

It is debated, however, whether the solution of the blood corpuscles takes place in the blood or in the urine. There

(o) Lebert's case, *loc. cit.*

(p) *Glasgow Medical Journal*, 1879, page 417.

(q) "The Pathology of the Urine," 1877, page 352.

(r) *Glasgow Medical Journal*, 1879, page 423.

(s) *New York Medical Record*, part i. 1882, page 18.

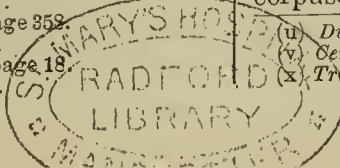
(t) *Glasgow Medical Journal*, 1879, page 424.

(u) *Dublin Journal of Medical Sciences*, July, 1874, page 1.

(v) *Centr. f. d. Med. Wiss.*, August 16, 1879.

(w) *Ibid.*, No. 30, 1881.

(x) *Transactions of the International Medical Congress*, 1881, vol. i., page 398.



are facts which indicate that it takes place in both. On the one hand we have Dr. Wickham Legg's observation, already quoted, that blood corpuscles which were numerous in the fresh urine had disappeared after twenty-four hours' standing; and on the other we have the peculiar pigmentation of the skin and sclerotics without jaundice, such as is described by Robert and Kuessner(y) as coming on after the attacks. Hayem's recent observation on the presence of free hæmoglobin in the blood serum during an attack is also a strong addition to the evidence in favour of the intra-vascular seat of this change.

Robert and Kuessner's case may be also cited to oppose Van Rossen's theory that the solution of the corpuscles is effected by the presence of oxalates; as in this case no crystals of any kind were found in the urine.

Prognosis.—The prognosis as to recovery from each attack is good, and, as already stated, no case has been known to terminate fatally; but the liability to relapse is infinitely great, in spite of all possible care. M. Bucquoy has, however, reported a case which underwent a spontaneous cure.

Dr. Druitt has recorded the history of his own long struggle with the disorder, and tells us how, after having in vain sought help from drugs, and from temporary residence on the South Coast and in Italy, he finally gave up the contest and went to India, where he remained well up to the conclusion of his account. It would be of interest if he would inform the profession of the subsequent progress of his case.

Treatment.—We have Dr. Druitt's authority for saying how futile were the various recommendations he adopted as to warm clothing, wash-leather socks, flannel from head to foot, etc., in arresting the attacks.

Following his experience, and from what I have seen of the disease, I believe the best advice we can give our patients is to seek a home in a warm and equable climate, if they wish to secure themselves against relapses. As these cases are frequently young male adults, this advice may often be followed.

With regard to drugs, none has proved of any service in preventing the relapses; but during the attacks, quinine, in relatively large doses (up to ten grains), has been most serviceable in the cases already published, and in my own experience. Dr. Warburton Begbie(z) had the good fortune to observe disappearance of the hæmoglobin from the urine after the administration of chloride of ammonium in scruple doses; but this good fortune has been so far unique: in one case in which I tried it, it appeared quite inert.

The facts recorded in the preceding pages afford a basis for certain general conclusions in which I have tried to sum up our present knowledge of this affection.

1. Paroxysmal hæmoglobinuria occurs at all ages, but most commonly in young persons.

2. It affects both sexes, but males more frequently than females.

3. It is in some cases distinctly hereditary.

4. The exciting cause of an attack is almost invariably a chill; though in a few cases the first attack has undoubtedly been induced by a blow, yet the subsequent attacks have been brought on by exposure to cold.

5. Its relation to ague is exceptional and not well made out.

6. It is not specially associated with any known diathetic tendency (e.g., rheumatism, gout, scrofula), or with any specific disease (e.g., syphilis).

7. There is strong reason to believe that functional disturbance of the liver is present in many cases.

8. Enlargement of the spleen has been noted, but is exceptional.

9. During attacks the temperature may vary from normal, or even subnormal, to a high degree of fever (105° Fahr.).

10. The skin may be covered by profuse perspiration, or this may be restricted to certain parts, or it may be dry.

11. The skin may be jaundiced, or of a peculiar dusky hue, during and after the attacks.

12. The serum of the blood during the attacks has been shown to contain hæmoglobin (Hayem).

13. The microscopical characters of the blood are those of slight anæmia.

14. The urine during the attacks always contains hæmoglobin or met-hæmoglobin, serum, albumen, paraglobulin, granular and hyaline casts, and urates.

15. The urine between the attacks may contain traces of albumen or hæmoglobin, or both.

16. The prognosis as to recovery from each attack is good, no fatal case having occurred.

17. While a spontaneous cure has been recorded, as a rule the liability to relapses persists.

18. No drug influences the liability to relapse; but during the paroxysms quinine has seemed of most service.

19. Residence in a tropical climate affords the best prospect of warding off future attacks.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LIVERPOOL ROYAL INFIRMARY.

SERIES OF HERNIA CASES.

(Under the care of Mr. RUSHTON PARKER.)

(Continued from page 173.)

Case 3.—*Strangulated Inguinal Hernia reduced by Taxis—Continuance of Functional Obstruction—Puncture of Distended Bowel—Rest secured by Recumbency, Suppression of Food, and a little Opium—Complete Recovery.*

JOHN D., aged thirty-four, a labourer, from Earlstown, Lancashire, was admitted on October 8, 1880, on account of a right inguinal hernia, five days old and two days strangulated. Mr. Harrison reduced the hernia the same day at his visit, but was not perfectly satisfied with the feel and look of the parts; so, being about to leave town for a few days, he explained his impression to Mr. Parker, and requested him to watch the man in the event of renewed emergency. The following day vomiting had occurred, the patient was uneasy, the site of the hernia was a little swollen, but evidently devoid of contents, and the neighbourhood tender. But the pulse was about eighty and the temperature about normal. No wind had now passed for three days; but there was no distension or hardness of the belly. Water and filtered beef-tea were alone permitted. Twenty-five or so drops of laudanum were given by the mouth, to be repeated night and morning unless obviously not required. He continued fairly comfortable and quite contented under this treatment for the following days, showing no change except an increasing fulness of the belly, with disappearance of the tumefaction over the inguinal canal; the pulse and temperature also remaining about the same. No wind was passing; but no abdominal symptoms were apparent, except a tympanitic condition with its consequent and increasing discomfort. The foot of the bed was elevated, and the relief to the abdomen was appreciated; but the size of the belly was increasing, and its tension too. Thirst was of course experienced, and it is not unlikely that it was too frequently and too copiously slaked.

On October 14, the sixth day after reduction, the abdomen was punctured with an exploring trocar and canula in three places, some foetid gas escaping. Though the issue was small the tension was lessened, and the patient was pleased at the relief. The punctures were repeated on the two following days, and the distension thus kept within bearable limits. Then a copious liquid stool followed, the belly flattened down, and the patient continued to do well; the diet being carefully restricted to bread, potatoes, and beef-tea or tea. The bowels remained sluggish after his diet was increased, and an occasional hot-water enema was used after they appeared to be otherwise sound and free from tenderness; but a flabby and bagging condition of the lower abdominal front persisted almost throughout the convalescence. A local complication arose in association with the punctures, and prolonged the confinement to bed, though fortunately without masking the uninterrupted good progress recognised in the abdominal functions. Some faeces occasionally escaped by the trocar, which was protected by carbolised oil, and manipulated with deliberate care to try to avoid intra-peritoneal effusion, with success. But a little escaped into the subcutaneous fat on the first day of puncture, and led immediately to a small putrid abscess, which was opened, but not properly disinfected or drained at once. There followed in consequence a serpiginous phlegmon

(y) *Berliner Klin. Woch.*, October 28, 1878.

(z) *Edinburgh Medical Journal*, 1877, page 1075.

As to the general physiological correctness of the information which Mr. Treves gave his audience, medical men will all agree. But ladies consult their dressmaker, and not their doctor, and hence hygiene becomes the last thing thought of. It is for the interest of the fashionable *modiste* that there shall be a periodical demand for new raiment on the part of his or her customers. To insure such a demand it is desirable that fashions shall change, and that the changes shall be of such a character that mere trimming and alteration of old costumes shall be insufficient to adapt the dress of one year to the style of the next. If fashion

can be made to veer round to such an extent that all who wish to be respectably dressed must have *new* things, then the object of the tradesman and the artist in dress is attained. This trade necessity is one of the forces by which the apparently causeless vagaries of fashion are guided.

Again: when a costume becomes adopted by the higher classes—the aristocracy in the fullest sense of the word—all other classes follow suit. But they not merely follow, the vulgar amongst them and the uneducated exaggerate; they imitate badly, and vulgarise styles originally graceful. Hence ugly and unhealthy extremes. Take, for instance, two widely opposite modes—the crinoline and the “eelskin” dress. The eelskin was the excessive reaction against the exaggeration of the crinoline. The crinoline, as everyone knows, is said to have been invented by the mistress of a French king to hide the evidence of her frailty. It certainly had the merit that it did not involve pressure on the abdomen, and it gave freedom to the lower limbs. It was only the dimensions which the hooped petticoat came to assume that made it absurd.

There is yet another reason, more potent than either, which guides the choice of the female mind in the matter of dress. The first object of dress, in all communities, from savages upwards, is to make the wearer agreeable to the other sex. Hence the efforts of the matron to resemble the maid; to prevent, by the compression of stays, that “spreading of the figure trim” which commonly begins to show itself when the most marriageable years are past. Hence the attempt of the dumpy to add to her stature by raising the heels of her boots; and of her who has been denied by nature an arched instep and slender foot, to imitate those beauties by the same artifices. That it is this which prompts the use of rouge, of face-powder, of artificial busts, of false hair, and other modes of providing the appearance of charms which nature has denied, needs no demonstration. Mrs. Haweis, in her work on “The Art of Beauty,” has defended the practice of thus supplementing natural deficiencies. The great Balzac, in one of his novels, describes a wife who was accustomed to rise before her husband was awake, bathe her face and arrange her hair, and then return to the conjugal couch, so that she might never appear to her husband with her hair tousled, and the colour of her face dimmed by perspiration and its lines coarsened by the muscular relaxation of sleep, but that on waking he should see her fresh, bright, and trim. From one point of view she was a wise woman.

Whatever excuses there may be for the eccentricities of female dress, there can be no doubt of the importance of the warnings which Mr. Treves gave. We would hope that his lecture may be one influence tending to induce ladies to remember that the most durable beauty is that which is the outcome of vigorous health. The pages of *Punch* have contained many illustrations in which the beauty of the healthy form has been contrasted with that of the dressmaker’s model, with a result not advantageous to the latter. And, bad as fashionable dress now is, the education of young ladies at the present day is far better, from a hygienic point of view, than it used to be, and our impression is that it is better in England than in any other country. A gymnasium, and provision for lawn tennis and cricket, are becoming parts of the necessary arrangements of girls’ as well as boys’ schools. A girl who has once learnt to thoroughly enjoy the expansion of the chest, the elasticity of tread, and freedom of movement which games of this kind promote, we dare not say will refuse, but will more reluctantly consent, to confine her waist, cripple her feet, and confine her limbs, than one who has never enjoyed healthy outdoor sports. Need we point out which one a sensible man will be more likely to select as his partner for life?

PARTIAL RESECTION OF THE LUNGS.

ABDOMINAL surgery is every day achieving fresh successes and while ovariectomy remains, and probably will remain, its greatest triumph, the later successes have been neither few nor small. So recently as the close of 1879, Professor Nussbaum, of Munich, said in a public lecture, “So soon as the physician diagnoses with certainty a cancer of the pylorus, the surgeon will allow but little time to pass before he excises the cancerous growth.” The words seem almost prophetic, for within a year and a half we have from Dr. Wölfler an account of several such operations, some of them successful, performed in the clinic of Professor Billroth. The operation is now recognised, the cases suitable for it described, and the method of performance fully detailed. With regard to abdominal surgery generally, we may say that operations which a very few years since would have been scouted as utterly beyond the pale of rational and justifiable surgery, have been performed with a success which more than justifies the boldness of the operators. The question very naturally suggests itself, how far the thoracic organs lie outside the domain of surgery. The successful treatment by free incision and drainage of pleuritic and pericarditic effusions, whether serous or purulent, is the last advance in this direction; but in the localised catarrhal pneumonia, the phthisical cavity, and the limited pulmonary tumour, there seems to be a field for further advance, although it is admittedly beset with difficulties of diagnosis for the physician, of technique for the surgeon. As a contribution to the subject, Dr. Schmid, of Berlin, details (*Berliner Klin. Wochenschrift*, Nr. 51, 1881) the result of certain experiments he has performed on the dog. These results are put forward in the most modest possible manner, with full knowledge of what they do and what they do not prove. The operation performed by Dr. Schmid consisted in the resection of the apex of the lung on one side. On the day before the operation one side of the dog’s chest was shaved and thoroughly cleaned, and the animal was operated upon while under the influence of morphia and ether. A portion of the fourth or fifth rib was excised subperiosteally, the portion being made as large and as far from the sternum as possible. A lobe of the lung was now drawn through the opening, or as much of it as possible. This was transfixed with a double catgut thread below the part to be excised, and a part of the lung including the wedge to be excised was then ligatured. The wedge was excised with scissors, all the larger bloodvessels and bronchia ligatured, and the edges of the lung brought together with catgut sutures. The double catgut ligature round the base of the lobe was now removed, and after seeing that no hæmorrhage occurred, the part was returned into the thorax and the external wound closed. Almost no antiseptic precautions were adopted throughout, with the exception of disinfection of instruments, sponges etc., with salicylic acid. The operation was performed eight times in all, and succeeded in three cases, while in five death occurred. The first dog operated on died within half an hour from carbolic acid poisoning, the spray having been used; while the other four died within two to five days from purulent pleurisy, evidently the result of septic infection. There was no hæmorrhage or gangrene in these cases, and in only two was there a slight local pneumonia. Several of the animals had subcutaneous emphysema. In no case was there loss of blood from the lungs. Two of the successful operations were on the same animal. Dr. Schmid has performed the same operation, post-mortem, on the healthy and the phthisical human lung. He finds the great difficulty lies in getting the lung drawn through the opening, more especially when there are extensive adhesions.

The operation, he believes, however, is perfectly practicable, and with the choice of suitable cases, and the use of all antiseptic precautions, he considers that the operation is one that might justifiably be attempted on the human body. The results of incision and drainage of phthisical cavities have not as yet proved very encouraging, but it must be admitted that the procedure has not yet had a fair trial. Any advance in the treatment of this terrible malady, before which, in the great majority of cases, we stand so hopeless and helpless, will be welcomed by us all. Whether such an advance is possible can be determined only by the skilful diagnosis of the physician, the bold and careful operating of the surgeon.

ALBUMINURIA AND ECLAMPSIA DURING PREGNANCY.

In a communication upon the above subject, published in the *Zeitschrift für Geburtshülfe und Gynäkologie*, Dr. Ingerslev, of Copenhagen, brings forward some new statistical facts which are of importance. He is opposed to those who hold that the occurrence of albuminuria in pregnancy is explained by pressure on the renal veins. He shows, by comparing statistics from different authors, the great divergence of statements as to the frequency of albuminuria during pregnancy; the wide differences being no doubt partly accidental, but also dependent upon the period of pregnancy at which the examination was made (some authors having included cases in which the urine was not examined till labour had begun), and upon the care which was taken to ascertain the source of the albumen. Dr. Ingerslev gives 600 cases, in which the urine was carefully drawn off with a catheter, so as to avoid any admixture of other secretions. In 29 of these, or 4·8 per cent., albumen was present. In 7 microscopical examination revealed casts. Of these 600, 248 were pregnant for the first time. As to the period of pregnancy, 5 were in the fourth month, albumen being present once; 13 in the sixth month, in 1 albumen being present; 36 in the seventh month, none of them showing albuminuria; 170 in the eighth month, albumen being present in 9; 281 in the ninth month, with albuminuria in 13; and 95 in the tenth month, albumen being present in 5. Of the 600 pregnant women, more or less œdema of the lower extremities was present in 96: of the 29 with albuminuria, œdema was present in 7. In 5 there was hydramnios, and 5 were twin pregnancies, but in none of these was there albumen. In one there was chronic heart-disease (mitral regurgitation) with albumen in the urine. The next point upon which Dr. Ingerslev contributes some facts, is as to the persistence of albuminuria after delivery. Out of 36 cases in which albuminuria was present during pregnancy, 8 died, 14 recovered, and 14 were lost sight of while albumen was still present. Of the 14 who recovered, in 7 the albuminuria lasted five days; in 4, fourteen days; in 2, thirty days; in 1, sixty days after delivery. Of those in whom albuminuria continued as long as they were under observation, in 3 it was ascertained to persist twenty days; in 5, one month and a half to two months; in 2, three months; in 1, five months; in 2, six months; in 1, seven months after labour. It follows, therefore, that in cases of albuminuria with pregnancy, the prognosis as to ultimate recovery should be guarded. With regard to the effect of the process of labour in producing albuminuria, Dr. Ingerslev gives 153 cases in which the urine was examined during labour: in 50 of them albumen was present, or about 32 per cent. Of these 50, 46 were also examined during pregnancy, but in only 15 of them was albumen then present. In 41 out of the 50 the subsequent course was ascertained. In 8 the albumen had disappeared the next day, in 25 on the second day, in 1 on the fourth, in 1 on the seventh, in 1 on the ninth, and in

1 on the thirteenth day. In 4 cases chronic cystitis followed. In brief, in 80·5 per cent. the urine became normal in forty-eight hours. As to the connexion between eclampsia and albuminuria, out of 100 cases of eclampsia in the Copenhagen Lying-in Hospital, the urine was examined in 77, and in 71 albumen was present, in 6 being absent. Out of the 71, in 20 general anasarca was present, œdema only of the lower extremities in 36, and in 15 no œdema. In 13 cases albuminuria was known to have preceded the eclampsia; in the remainder it was not detected till simultaneously with, or after, the convulsions. As to the course of the albuminuria, in 26 it disappeared within five days, or 40 per cent.; in 39, or 60·9 per cent., within fourteen days. The view as to the pathology of puerperal albuminuria and eclampsia which Dr. Ingerslev adopts, is that it is the manifestation of an especially acute nephritis; and that the albuminuria, eclampsia, and nephritis are co-ordinate phenomena, results of a vaso-motor reflex neurosis. This is a view which it is difficult to controvert, for there is scarcely any acute disease which is not accompanied by some alteration in the action of the vaso-motor system, and therefore might not be called a vaso-motor neurosis.

THE WEEK.

TOPICS OF THE DAY.

THE sixty-first annual court of the Seamen's Hospital Society, Greenwich, was recently held at the Mansion House, under the presidency of Sir Robert W. Carden, M.P. To many this charity still sounds very unfamiliar under its present title, and they need to be reminded of that huge vessel, the *Dreadnought*, which used formerly to lie off Greenwich as a hospital-ship for seamen of all nations. It will, moreover, be remembered that in 1870 the Government granted to this Society, at a nominal rent, a lease of the infirmary attached to Greenwich Hospital; since which time its measure of usefulness has been carried on ashore, instead of afloat. The report now presented showed that during the year 1881 the number of patients received had been 7132, as compared with 4245, the average of the preceding ten years; and the average number of beds constantly occupied had been 186 during the past year, as compared with 167, the average of the preceding seven years. During 1881 the income of the Society from subscriptions, exclusive of legacies received just at the close of the year, had been £12,262, and the necessary expenditure had left a deficit of £1121. The Committee therefore, through their chairman, made a strong appeal for additional help. The adoption of the report was moved by Sir Thomas Brassey, M.P. (who pointed out that, although the Government gave free quarters to the Hospital, it could give no pecuniary assistance towards its maintenance), seconded by Lord Ashley, and carried unanimously.

The result of the official inquiry held by Mr. R. Basil Cane, the Local Government Board inspector, into the circumstances connected with a recent complaint made against the Sheffield Workhouse authorities, has now been made public. It will be remembered that, as previously reported in these columns, on a coffin being opened at the workhouse, at the request of the wife of a pauper who had died in the building, it was found to contain the unclaimed remains of an old man, instead of those of her husband, a young man, whose body, it further appeared, had been sent by mistake to the Medical School at Leeds for dissection. The report of Mr. Cane attributes the unhappy mistake to the habitual neglect of the master of the workhouse to exercise a proper supervision over the removal of unclaimed bodies to the Medical School, and to the very objectionable practice which has

prevailed of entrusting these arrangements to pauper inmates, without the supervision of the master or any other responsible officer. The master of the workhouse is also blamed for not complying with the regulations of the Guardians, requiring him to keep a record of the applications for bodies made by the licensed teacher of anatomy at the Leeds School, and to obtain and lay before the Committee a certificate of the proper interment of each body sent to the School.

We record the following details with the sole object of illustrating some of the difficulties which beset public analysts; at the same time we must remark that from our knowledge of the careful manner in which Dr. Vacher fulfils his public duties, we are somewhat at a loss to account for the direct conflict of opinion in the case in question. A grocer of Higher Tranmere was summoned by the Birkenhead authorities for selling to an inspector, as coffee, an article which was found by Dr. Vacher, public analyst, to contain a large percentage of chicory. The defendant pleaded that there was no adulteration, and submitted a certificate from Dr. Davies, public analyst, Isle of Man, declaring the coffee free from chicory. But Dr. Vacher affirmed that he could not possibly have made a mistake, having twice tested the coffee analytically, with precisely the same result down to a milligramme. The case was adjourned so that the coffee might be submitted to analysis at Somerset House. Meanwhile, Dr. Campbell Brown, of Liverpool, was asked to examine the sample, and he pronounced it genuine coffee, adding: "Chicory is recognised only by the microscope, unless the taste discloses its presence. Its appearance under the microscope is quite distinct from coffee, and in the coffee I have analysed I have not found a single particle of chicory after a minute examination." The certificate received from Somerset House was equally explicit, and stated that the coffee was entirely free from chicory. When the case again came on before the Birkenhead stipendiary, the foregoing evidence was adduced, and the case was dismissed, with costs against the Corporation.

Mr. Osgood Torkington, of Clapham Park, has recently bequeathed £1000 in Consols to the Royal Hospital for Diseases of the Chest, City-road; a similar amount to the Royal Hospital for Children and Women in the Waterloo-road; and £2000 Consols to the Royal Albert Orphan Asylum. Mr. Torkington was for many years an active member of the committees of management of the two last-named institutions. A special clause in the will provides that the legacies to the foregoing institutions shall not carry votes, presentations, or letters of recommendation. Such a renunciation of conditions is highly praiseworthy. A *quid pro quo* is by far too generally expected and exacted in return for "charitable" donations and bequests.

During the month of January last, as shown in the report of the Registrar-General of Scotland for that period, there were registered in the eight principal towns of North Britain the births of 3685 children, and the deaths of 2365 persons. Allowing for increase of population, this latter number is 685 below the average for the month during the last ten years; so few deaths have not been registered in January since 1859. A comparison of the deaths registered in the eight principal towns shows that during the month under notice the mortality was at the annual rate of 18 deaths per 1000 persons in Leith, 20 in Edinburgh, 21 in Dundee, 22 in Perth, 23 in Aberdeen, 24 in Paisley, 25 in Glasgow, and 27 in Greenock. Of the 2356 deaths, 930, or 40 per cent., were those of children under five years of age. The zymotic class of diseases proved fatal to 368 persons, and constituted 15.6 per cent. of the whole mortality. This rate was considerably exceeded in Glasgow, owing to deaths

from whooping-cough, measles, fever, and scarlet fever. Whooping-cough was, in fact, the most fatal epidemic, and caused eighty deaths, or 3.4 per cent. of the whole mortality. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 517, or 21.9 per cent. Those from consumption alone numbered 241, or 10.2 per cent. Three males and four females were aged ninety years and upwards, the eldest of whom was a farmer aged ninety-four years.

Professor Flower last week presided, *vice* Dr. Andrew Clark, at a lecture given by Mr. Frederick Treves, F.R.C.S., of the London Hospital, in the Town Hall, Kensington, the subject chosen being "The Dress of the Period." A large assemblage of ladies filled the Hall, and listened apparently with much interest. Mr. Treves frankly owned that he entertained but little hope of alteration for the better while the human mind exhibited a sheep-like tendency to follow the "patterns" put forward by milliners; but in support of his arguments for reform he pointed out the inconsistencies in the prevailing fashionable methods, which utterly failed to fulfil the first necessary condition to be observed in clothing the body—namely, the preservation of an equal temperature. The absurdity of a lady's evening dress, which left the upper part of the body entirely bare, and attached to the lower limbs a weighty mass of dragging and useless garments, was particularly noticed. He was especially severe upon the female wasp-like waist, which bore about the same proportion to the body as the stem of a wine-glass does to the cup. The "normal" waist measured from twenty-eight inches to thirty inches, while there was not a dressmaker in London, Mr. Treves averred, who allowed a waist of more than twenty-five inches. Temporary deformity produced permanent and deadly results, and the present system could not be defended on the score of beauty, of sense, or of health. The modern boot and the modern corset were in like manner denounced. Admitting that sensible people did a great deal of harm to dress-reform by abandoning fashion for frumpiness, the lecturer denied that Englishwomen were dependent for their attractiveness upon an array of pads and bands and a reckless profusion of garments.

The Select Committee of the House of Commons appointed to inquire into the working of the Artisans' and Labourers' Dwellings Improvement Act, 1875, and the amending Act of 1879, recently met to choose a chairman and consider their course of procedure. The Committee consists of the following members:—Mr. A. Balfour, Mr. Brodrick, Mr. Bryce, Mr. F. Buxton, Mr. Cropper, Sir R. Cross, Viscount Emlyn, Mr. Hastings, Sir H. Holland, Mr. John Holland, Mr. W. Holms, Mr. Leamy, Mr. Shaw-Lefevre, Sir J. McGarel Hogg, The O'Donoghue, Mr. Rankin, Sir Matthew Ridley, Mr. Torrens, and Sir Sydney Waterlow. Sir R. Cross was elected chairman.

In addition to the Paddington Vestry, the parishes of Kensington and Lambeth, and the Board of Works for the Strand District have agreed to contribute towards the expenses incurred by Mr. Dobbs in prosecuting his appeal against the Grand Junction Waterworks Company. It is stated that the case will very shortly be heard, and that Mr. R. C. Webster, Q.C., will be the leading counsel for the appellant.

We hear from France, through an announcement in the *Temps*, that Dr. Galippe, Superintendent of the Laboratory at the Paris Faculty of Medicine, has been directed by M. Jules Ferry to visit England with a view of reporting on the teaching of dentistry in this country.

The managers of the Royal Infirmary of Edinburgh have

received the sum of £13,500 for the funds of the institution from the estate of the late Dr. Thomas Hunter, Deputy Inspector-General of Hospitals.

UNIVERSITY OF EDINBURGH.

At a meeting of the Edinburgh University Court, held last week, among other business, there was laid before it an order of Her Majesty in Council, dated December 19, 1881, approving of the Court's report in favour of an alteration of Ordinance No. 8, Edinburgh No. 3, for making it compulsory on medical graduates to take, in the future, the degree of Master in Surgery as well as that of Bachelor of Medicine. At the same meeting the following gentlemen were made additional Examiners for graduation in Medicine and Surgery:—Dr. Byrom Bramwell, F.R.C.P.E., of Edinburgh—Clinical Medicine; Dr. Sidney Coupland, F.R.C.P., of London—Pathology; Dr. J. D. Gillespie, F.R.C.S.E., of Edinburgh—Surgery; Dr. William Murrell, M.R.C.P., of London—Materia Medica; and Dr. Richard Caton, M.R.C.P. Lond., of Liverpool—Physiology.

GAOL MORTALITY IN THE PUNJAUB.

The report of the Inspector-General of Punjaub Gaols (Dr. Dallas) for 1880 shows that the death-rate for the year was 7·8 per cent., against 14·01 in 1879. This is a great improvement, though the rate is still very high. The death-rate of the province as a whole was 27 per 1000. The principal causes of death in the gaols were bowel complaints, fever, and diseases of the respiratory organs. Civil and under-trial prisoners showed very favourable vital statistics. Dr. Dallas finds that the gaol mortality fluctuates with the provincial mortality, and comes to the conclusion that the same influences are at work in producing aggravation or improvement outside and inside gaols. The higher mortality in the prisons, as compared with that of the free population, is attributed by him to overcrowding and association; and he holds that were the separate system of imprisonment carried out, the gaol death-rate would be greatly reduced. The gaol at Rawalpindie had a mortality of 40·40 per cent., and was caused by typhus fever, which, it is said, the medical officer in charge mistook for intermittent.

THE PARIS MATERNITÉ.

The famous Maternité is about to be rebuilt, as it is found that it cannot be by any system of reparation rendered suitable for its purposes, while most of the present construction is in a state of approaching ruin. It is the remains of some of the dependencies of the Abbey of Port Royal, which, like all other religious communities, was suppressed in 1790. Under the "Terror" it received the name of Port Libre, and was converted into a prison, and in the "An IV." was made a receptacle for infants and nurses. Later on it became a lying-in hospital. The buildings about to be replaced are several centuries old, and for some time past have only been propped up; while the transformation of the services of the hospital which the new views of hygienic science render requisite is impossible in the present structure. In 1879 the expense of a restoration was estimated at a million francs, and matters have become much worse since then, so that the Conseil de Surveillance of the Assistance consider an entire reconstruction of the edifice will be the preferable course to pursue. A plan, the carrying out of which would require an expenditure of three millions and a half, has been submitted to the Préfet de la Seine, specifying which of the works to be executed are the most urgent. The immediate expense to be incurred if the Municipal Council ratifies the proposal of the Assistance Publique will amount to about 600,000 francs, which will suffice for building the proposed pavilions and establishing the school.

THE INDIAN MEDICAL SERVICE.

In a recent issue of the *Gazette of India*, a despatch from the Right Honourable the Secretary of State for India (No. 407, dated December 8, 1881) is published relating to the pension regulations of the various branches of the Indian Military Service, including the Medical and Veterinary Departments. The rates of pension for the Indian Medical Service as existing in 1860, 1864, and at present are contrasted in the despatch in the following table:—

		1860.	1864.*	1881.*
17 years' service	... ..	£191 12 6	£220	£292
20 " "	... ..	191 12 6	220	365
21 " "	... ..	250 0 0	292	365
24 " "	... ..	250 0 0	365	365
25 " "	... ..	300 0 0	365	500
27 " "	... ..	300 0 0	456	500
29 " "	... ..	365 0 0	456	500
30 " "	... ..	365 0 0	550	700
32 " "	... ..	500 0 0	550	700
35 " "	... ..	700 0 0	550	700

* Additional pensions of £350 and £250 granted for five years' service in the rank of Surgeon-General and Deputy Surgeon-General. With the option of £700 to officers who entered before 1864 and did not receive the higher additional pensions of Deputy Surgeon-General or Surgeon-General. Medical officers compulsorily retired at the age of fifty-five were granted the pension next above that to which their service entitled them.

On this table the despatch comments as follows:—The pensions of medical officers who have not served in the higher appointments have been raised since 1860 by amounts varying from 37 to 91 per cent. in the case of officers who have served up to thirty years; while the highest pension formerly allowed—namely, £700—which was only obtainable after thirty-five years, can now be obtained after thirty years' service. Further, those medical officers who serve as Deputy Surgeon-General and Surgeon-General can now, on completion of thirty years' service and five years in the grade, obtain pensions of £950 and £1050 a year respectively, as against £365 and £700 obtainable after thirty and thirty-five years under the old rules, and as against £800 and £900 obtainable by them under the rules of 1864. The despatch further points out that the higher relative rank conferred on medical officers by recent warrants, confers substantial advantages as regards widows' pensions, wound pension, and retirement on account of ill-health before completing seventeen years' service.

The periods of leave to count for pension have been modified in order to suit the periods of service after which the different rates of pension are obtainable. They are now two years in seventeen years' service, three in twenty, four in twenty-five, and five in thirty. Furlough on medical certificate has been restricted to one year. Extensions can be given on the recommendation of the Medical Board in London. Service in Netley counts for pensions. There can be no question that the new regulations are liberal. They also compare favourably with the rates of pension granted to combatant officers.

PATHOLOGICAL SOCIETY OF DUBLIN.

At the meeting of this Society held on Saturday, February 18 (Dr. William Stokes, President, in the chair), Dr. Kendal Franks showed the kidneys and supra-renal capsules of a girl aged fourteen, who died of Addison's disease. She first complained of illness two months before her death, which occurred suddenly while she was in a state of profound asthenia. The body was well nourished and plump. The skin was uniformly darkened to a coppery hue, the most deeply pigmented parts being the sides of the neck, the face, the backs of the hands, and the knees. The apices of both lungs presented patches of caseous pneumonia. The supra-renal bodies were much enlarged and quite hard, notably the left; they contained large masses of caseation, and the microscopical appearances of smaller nodules were those of

tubercle, viz., central giant-cells with many nuclei and ramifying processes, a zone of epithelioid cells, and a peripheral arrangement of lymphoid corpuscles. Dr. J. W. Moore showed (for his colleague, Dr. A. W. Foot, and himself) a specimen of carcinoma of the pyloric end of the stomach, the duodenum, and the retro-peritoneal glands, from a man aged fifty. The immediate cause of death was extensive hæmorrhage. An immense clot of recently effused blood occupied the stomach, and a second clot had taken a cast of the duodenum. Professor E. H. Bennett showed the structures which form the immediate relations of the bursa of the lesser sciatic notch and internal obturator tendon, affected with primary chronic rheumatic arthritis. His object in presenting this specimen was to show that in bursæ remote from the joints, and devoid of connexion with them, the disease occurred as a primary affection; notably in the particular bursa submitted, and in that which facilitates the motions of the great gluteal tendon over the great trochanter of the femur. In the present specimen the obturator tendon was frayed, as the biceps tendon is in the shoulder, and the bone was absorbed, its surface being disfigured as in arthritis of joints; while the bursa showed, by its irregular extension into and between the origins of the hamstrings from the tuber ischii, that it had long been the seat of effusion. The disease in these cases, as in the example submitted to the Society, was symmetrical, occurring on each side of the body, and the hip-joint on both sides exhibited only the most trivial traces of the affection.

At the meeting of this Society held on Saturday, February 25 (the President, Dr. William Stokes, in the chair), Dr. J. W. Moore read an account which had been forwarded by Surgeon-Major G. Hare, Army Medical Department, now stationed at Mooltan, Punjaub, India, of the passage of several large gall-stones by a lady, aged forty-one years. The patient had suffered more or less from biliary colic for the past five years. Latterly the attacks were followed by jaundice. Three unusually large gall-stones were recently passed per anum by the patient—the first on November 11, 1881, cuboid in shape, with seven well-defined facets; the second on November 25, nearly a perfect octagon, with eight triangular facets; and the third on January 24, 1882, also of octagonal form. The attacks of biliary colic, indicating the passage of these calculi through the common bile-duct, had occurred three or four days previously in each instance, and were of terrible intensity. Nor was this to be wondered at, seeing the stones were all from an inch and three-quarters to two inches in circumference. Professor Bennett exhibited a series of calculi which he had received from Surgeon-Major Robinson, H.M. Bengal Army. The first stone was removed from the bladder of a hill-man, who was shot in the right gluteal region early in 1879. The bullet passed through the right ilium, finally lodging in the bladder, where it became the nucleus of a phosphatic calculus, weighing (with the bullet) 420 grains. The patient suffered no uneasiness until the beginning of 1881, when all the symptoms of stone appeared. The other specimens were three small calculi which Surgeon-Major Robinson had removed from the very capacious urethra of a young man, to whom they had caused little or no inconvenience. The largest of these rare calculi was twelve millimetres in circumference.

THE PARIS WEEKLY RETURN.

THE number of deaths for the seventh week of 1882, terminating February 16, was 1417 (761 males and 656 females), and among these there were from typhoid fever 35, small-pox 21, measles 25, scarlatina 3, pertussis 11, diphtheria and croup 51, dysentery 1, erysipelas 9, and puerperal infections 11. There were also 58 deaths from tubercular and

acute meningitis, 246 from phthisis, 58 from acute bronchitis, 147 from pneumonia, 71 from infantile athrepsia (22 of the infants having been wholly or partially suckled), 153 from diseases of the cerebro-spinal system, and 34 violent deaths (26 males and 8 females). The deaths registered exceed those of the four preceding weeks, and the mortality continues very high—viz., 33.10 per 1000,—and that especially as regards chronic diseases of the respiratory organs and diseases of the cerebro-spinal system. The births for the week amounted to 1219, viz., 612 males (429 legitimate and 183 illegitimate) and 607 females (469 legitimate and 138 illegitimate): 92 infants were born dead or died within twenty-four hours, viz., 58 males (32 legitimate and 26 illegitimate) and 34 females (20 legitimate and 14 illegitimate).

THE CASE OF MCMANN.

WE this week publish a paper by Doctor Ridley Dale, of Sunderland, with regard to the case of McMann, tried some time ago at Durham. A most competent authority, Mr. Brudenell Carter, contributed to our columns a paper *à propos* of this case, dealing with the whole subject of nerve lesions in railway accidents; and he therein stated certain objections (as he thought) to the mode in which the electrical test had been employed in McMann's case. To this, as is duly his right, Doctor Dale now replies.

But for our own part we cannot afford to depart from our independent position. These matters of discussion are well worthy of all attention, and doubtless the rousing of medical opinion with regard to them will have a beneficial effect. As far as we are concerned, from an editorial point of view, our end has been attained. It was our duty to point out how grievously men may be misunderstood if they take upon themselves functions which they are not called upon to fulfil, and which may lead to a total misconstruction of their motives. This has been attained, and in the meantime we may leave the scientific part alone.

MEMORIAL TO THE LATE SURGEON-MAJOR PORTER.

THE committee appointed to carry out the resolution that a monument to the late Surgeon-Major J. H. Porter, of the Army Medical Department, should be placed in the chapel of the Royal Victoria Hospital at Netley, have reported that a memorial tablet with an appropriate inscription was completed and placed in the chapel on October 14 last. The medallion portrait, which forms the chief feature of the memorial, is of life size, and both it and the other sculptural parts are of pure white statuary marble, on a background of polished black marble. The committee have the satisfaction of being able to state that the portrait and the artistic execution of the whole tablet, entrusted to Mr. Verheyden, of London, have received the warmest approval of all the relatives and friends of the late Surgeon-Major Porter. There was a small balance left after payment of all expenses, which the committee handed over to the Netley Charitable Fund.

THE PROFESSIONAL ALLOWANCES FOR PRESIDENT GARFIELD'S ILLNESS.

THE Committee of Congress which is auditing the expenses connected with General Garfield's illness has determined to allow the physicians and nurses the following amounts:—Dr. Bliss, \$25,000; Dr. Agnew, \$15,000; Dr. Hamilton, \$15,000; Dr. Reyburn, \$10,000; Dr. Boynton, \$10,000. Surgeon-General Barnes is to be promoted to be Major-General on the retired list. Surgeon Woodward is to be promoted to be Lieutenant-Colonel. Mrs. Edson is to have \$5000; Mr. Crump, Steward of the White House, is allowed \$3000, and the other White House *employés* are to receive two months' extra pay.

SANITARY INSTITUTE OF GREAT BRITAIN.

At the ordinary meeting of the Sanitary Institute of Great Britain, to be held at 9, Conduit-street, Wednesday, March 8, at 7.45 p.m., the prize of £200 for an essay on the "Range of Hereditary Tendencies in Health and Disease," will be presented by the Rev. E. Wyatt Edgell, B.A., and a paper on the subject will be read by George Gaskoin, M.R.C.S., L.S.A., the author of the prize essay. The paper will be followed by a discussion.

SNAKE-POISON AND PERMANGANATE OF POTASH.

In the *Indian Medical Gazette* of February 1, Dr. Vincent Richards reports "A Case of Snake Bite: Hypodermic Injection of Permanganate of Potash." A native sweetmeat vendor was found, on the morning of December 30, 1881, lying on the ground, at Goalundo, and was carried in a semi-insensible state to Dr. Richards' house. He was unable to walk or stand. His pupils were slightly dilated; his breathing rapid and abdominal; the heart's action was accelerated; and the forehead bathed in perspiration. The left hand—the bitten one—was colder than the other; the left arm had been ligatured above the elbow with a piece of cloth; upon the dorsal aspect of the thumb of that hand there were two distinct punctures connected with scratches running outwards; and the part was slightly swollen. Dr. Richards applied another ligature, and cut through the punctures into the subcutaneous areolar tissue, which he found only slightly stained, showing that only a small quantity of poison had been injected—too small, Dr. Richards thinks, to produce, under any circumstances, fatal results; but, to be on the safe side, he injected hypodermically a grain of permanganate of potash, dissolved in half a drachm of water; and then removed the ligature. When able to speak, the man complained of great pain about the injured arm and shoulder, and of a tightness about the throat. He stated that when about to get up he put his left hand out, felt a sharp prick, and saw that a snake had bitten him; he immediately shook it off, and saw it glide away. It was of a dark colour, and about two feet long. Dr. Richards thinks it may have been some species of viper—possibly a small duboia. Next day the hand was much swollen, and painful; but the swelling was due, Dr. Richards states, to the injection of the permanganate; and in a few days the man was perfectly well again. The man was bitten about 7 a.m., and Dr. Richards first saw him at 8.30. He considers that the serious symptoms were due in a great measure to fear, and in a minor degree to the action of the poison. He has published the case, not as being one of snake-bite cured by permanganate of potash, but with the object of emphasising two points of great importance in dealing with cases of snake-poisoning:—"Firstly, it is absolutely necessary to cut through the fang punctures to ascertain whether the bite be poisonous or not. If there is no red currant jelly-like appearance and no staining of the subcutaneous tissue—if, in short, there is nothing abnormal—the bite is not poisonous. And, secondly, the necessity of distinguishing the effects of mental shock from the symptoms of snake-poisoning, or unwarrantable conclusions will inevitably be drawn as to the efficacy of any treatment adopted."

THE MARINE HOSPITAL SERVICE OF THE UNITED STATES OF AMERICA.

We have made a point of noticing briefly some of the latest annual reports of the Supervising Surgeon-General of the Marine Hospital Service of the United States of America, for the reason that many of the duties performed by it are analogous to those undertaken by our own Board of

Trade; and some of the experiences and suggestions recorded are applicable to our Mercantile Marine. The present report, for the fiscal year ended June 30 last, shows that during that period 32,613 patients received relief from this Service, of whom 12,449 were treated in the hospitals belonging to the Service at different ports, and 20,164 at their several dispensaries. These numbers show an increase of 7753 seamen treated over the preceding year. Some time since it was ordered by Congress that vessels should carry a medicine-chest, as is done by British merchant ships; but as no specification was issued, it followed that no two chests were alike, and frequently, moreover, they were not provided with proper medicines. To remedy this, Surgeon-General John B. Hamilton has provided a handbook for the Marine Service, which contains lists of what the chests should contain, with plain directions for using the different remedies. The report again calls attention to the desirability of passing a law for the physical examination of seamen previous to embarkation. Year by year the records of the shipment of incurable syphilitics, chronic invalids, and even lunatics, accumulate. The facilities offered by the Marine Hospital Service for such an examination previous to shipment would in many cases be adopted by owners of vessels, but such an arrangement is hostile to the views of the "crimps," with whom the sailors lodge whilst on shore; and so powerful is this class, that they entirely control the sailor market, and can prevent any vessel sailing by withholding a crew. Mr. Hamilton suggests that owners should alter the advance-wages system, which would to a great extent free the sailor from these men; but undoubtedly a stringent law on the subject would be the most effectual remedy. Such a law, it is to be hoped, we shall before long see in this country, since, as we have before now shown, the evil of shipping seamen suffering from acute and chronic ailments is a growing complaint in some of our principal ports. Amongst the suggestions included in the report, which is addressed to the Secretary of the Treasury at Washington, is one for extending the operations of the Marine Hospital Service by the establishment of additional hospitals at certain places named; and attention is once more invited to the propriety of statutory provision for the appointment of medical officers to the Service.

THE VIENNA PROFESSORSHIP OF PATHOLOGICAL ANATOMY.

This chair, which has taken so long to fill up, it is now announced, is to be occupied by Professor Kundrat, of Graz University (Professor Klebs, of Prague, who was so desirous of obtaining it, having accepted a call to Zürich), under the title of "Ordinary Professor of Pathological Anatomy and Director of the Pathologico-Anatomical Institute of the Vienna University."

SANITATION IN SWEDEN.

We have received a pamphlet by Dr. Eklund, of the Swedish Royal Navy, describing the new barracks for seamen and marines recently erected on the Isle of Skeppsholm, near Stockholm. The old barracks were built on an alluvial deposit saturated with faecal matter, the ground water black and noisome, the walls damp and covered with mould, and the whole so ill arranged as at length to be pronounced unfit for habitation. A large granary, no longer required, has, after sundry alterations and additions, been converted into a new barrack. Standing on a granite rock, with vaulted cellars and massive masonry, the new barracks are in every way superior to the old, but how far they come short of our ideal may be inferred from the fact that the average cubic space for each man is only 350 feet, 600 being the allowance here, and that is deemed insufficient by the best

authorities; but even this is a step in the right direction, for some of the wards in the older building gave but 160 cubic feet per head (!) Dr. Eklund has much to say on the questions of diet, ventilation, and warming; he has succeeded in reducing the CO_2 in the dormitories by 50 per cent., and in replacing the old iron stoves—which, becoming red hot, gave off much carbonic oxide—by others, lined with fire-brick; but he complains bitterly that the exhaust shafts for vitiated air have not been supplemented by any provision for the admission of pure air, and that the arrangements of the drains, privies, kitchens, etc., are still imperfect in the extreme. The accommodation provided for the sick is no better: an infirmary ward with seven beds is ridiculously inadequate for the wants of 700 men or more; it is situated within the barrack, is constantly full, and provides but 600 cubic feet for each bed, instead of our minimum of 1200. There is an “infirmary of reserve” for minor cases, but, by an absurd rule of the Service, suspected cases of fevers are detained here for three days’ observation, until the characteristic symptoms shall have become developed sufficiently for a positive diagnosis, and this constitutes a perpetual focus of infection. Typhus, enteric, scarlet fever, and measles are seldom absent, and frequently assume epidemic proportions. Indeed, a perusal of this pamphlet gives us good reason to congratulate ourselves on being at least a century in advance of some, and these not the least civilised, of our neighbours. We in England are accustomed to deplore the slow progress of sanitary education among the masses, and to complain of official inertia and obstructiveness in high quarters, but we can scarcely conceive the ignorance or neglect of the most elementary principles of hygiene which prevails elsewhere. The picture our author draws of the dwellings and habits of the lower classes in the Swedish capital is simply horrible; and the people seem to be as vicious and intemperate as they are filthy. Indeed, a positive aversion to fresh air and an utter indifference to the pollution of soil and water pervade all ranks of society. The public water-supply of Stockholm is taken from the Mälaren bay or fiord, the brackish waters of which are highly charged with animal and vegetable matters, and receive the outfall of the suburban sewers. The chlorine amounts to eighteen grains per gallon; and the oxygen required by the organic matter is 0.9237 per 100,000 after filtration! Our worst London waters rarely contain more than 1.2 grain of chlorine per gallon, or require more than 0.085 part of oxygen in 100,000—the best, 0.015. Dr. Eklund is an accomplished and scientific physician, well known in connexion with naval hygiene, and if his practical energy at all equal the strength of language in which he indulges we may hope that he may be able to carry out some much-needed reforms in the habits and ideas of his countrymen. Whatever excuses may be urged for the poor in an inhospitable climate, none can be found for the Government and public bodies in permitting such a state of things.

THE SALICYLIC ACID TREATMENT OF RHEUMATISM AND HEART-DISEASE.—In a clinical lecture, Prof. Flint (*New York Med. Record*, January 21) adverted to the fact that while salicylic acid effected the cure in a case of rheumatism, it did not prevent the development of heart-disease. He adverted in this relation on the importance of giving a sufficient amount of alkalies to render and keep the urine alkaline, and thus diminish the liability to heart complications. He had observed that rheumatic pericarditis and endocarditis were more common since the introduction of the salicylic treatment of rheumatism than before, when the alkaline method was relied upon almost entirely; and this was due to the fact that physicians neglected to render the urine alkaline by giving alkalies.

THE ANNUAL MEETING OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ON March 1, in accordance with the laws of the Medico-Chirurgical Society, the annual meeting was held in the Society’s abode in Berners-street, and at the somewhat unusual hour of half-past five. This hour was, we believe, selected by the Council as a kind of test, to see whether it would bring a larger assemblage than has sometimes been seen on the occasion of the annual meetings of this Society. That may have been so, but with regard to the test, the number—at no time large—gradually grew less and less as time went on, till at last very few except those directly concerned in the business of the Society were left behind. We could hardly, therefore, call this a success, though undoubtedly the Fellows present were eminent enough to constitute a body such as can seldom be matched in any part of the Queen’s dominions.

The ballot was opened at the commencement of the meeting, Dr. Silver and Mr. Gant being appointed scrutineers, who, after the lapse of the statutory hour, made the following return:—*President*: *John Marshall, F.R.S. *Vice-Presidents*: Samuel Osborne Habershon, M.D., *John Burdon Sanderson, M.D., F.R.S., Messrs. Timothy Holmes and *Jonathan Hutchinson. *Treasurers*: Charles Bland Radcliffe, M.D., and Mr. John Cooper Forster. *Secretaries*: Reginald Edward Thompson, M.D., and Mr. M. Berkeley Hill. *Librarians*: Edward Henry Sieveking, M.D., and John Whitaker Hulke, F.R.S. *Other Members of Council*: James Andrew, M.D., William Cholmeley, M.D., *James E. Pollock, M.D., Sydney Ringer, M.D., Reginald Southey, M.D., Messrs. *George Cowell, John Langton, *Henry Power, *Howard Marsh, and *Septimus W. Sibley. (Those gentlemen to whose name an asterisk is prefixed were not on the Council or did not fill the same office last year.)

The next business was the report of the President and Council, which, on the motion of Mr. Spencer Wells, seconded by Dr. Abercrombie, was unanimously adopted. After this, a few alterations in the by-laws were moved from the chair, and seconded by Dr. Sieveking. These had reference to certain changes in the official title of Mr. Wheatley, now the Resident Librarian. It would not be easy for us to say more than was then said of the merits of that gentleman and of the way in which he fills a most onerous post. Suffice it that we most heartily concur in the opinion well-nigh, we believe, universal among the Fellows, that to a knowledge unique in its way Mr. Wheatley adds that courtesy and kindness which, essential in a good librarian, well become a finished gentleman.

Upon this there followed what we hoped had been at last got rid of—the question as to the grant of £50 to the Harvey Tercentenary Statue. The grant had been passed by a narrow vote, and the Treasurer absolutely refused to pay it. Technically he was right, but possibly he would have signed the cheque without making any difficulty had he not been threatened with pains and penalties of fearsome kind. It was early suggested that a subscription might be got up by the Society in an “official” manner, but this was objected to on twofold grounds, one being that the subscription thus procured would not bear the stamp of the Society (which, by the way, would matter as little to Harvey as to his dead master, Charles the King), and yet again, that there would of necessity be a special meeting to sanction such wrong procedure. Probably the whole thing has been a mistake from beginning to end, but that does not cover the rather ridiculous position into which the Society has got.

Of the President’s address we cannot now speak; it was highly characteristic: eloquent and caustic—a personal defence and an impersonal attack—it will not be forgotten by those who listened to it.

For the address a vote of thanks was proposed by Mr. Charles Hawkins, who alluded likewise to the scheme for the amalgamation of the different societies, which he said he had anticipated by something like half a century, at all events before the time of the present generation—meaning thereby, as we understood it, men rather over forty years of age. This vote was seconded by Mr. Kiallmark,

and carried; after which, Surgeon-General Balfour proposed, and Dr. John Harley seconded, a vote of thanks to the retiring officers, and the meeting adjourned.

The position of the Royal Medical and Chirurgical Society is, in the meantime, however glossed over, so critical as to call for a more serious consideration and inquiry than we can on the present occasion give it, but we hope to be able to deal with it soon.

LONDON SANITARY PROTECTION ASSOCIATION.

THE first annual general meeting of this Association was held at the Society of Arts, which is directly opposite the offices of the Association in John-street, Adelphi, on Saturday, February 25. Professor Huxley, President of the Association, took the chair, and read the annual report, which stated that at the end of 1881 the Association had 192 members, twenty-two of whom were medical men who had become members in respect of their own dwelling-houses, thus showing that the medical profession were alive to the advantage to themselves and their families of having the sanitary state of their houses attended to. The need for this attention was shown by the fact disclosed by Mr. Burton's reports, that 6 per cent. of the houses inspected during the year were absolutely pestiferous, and it was by a marvellous chance that they had not been hotbeds of disease. In a much larger proportion of cases of inspection (more than two-thirds of the whole) there were, it appeared, general defects in the drainage arrangements which were very dangerous to children or delicate adults. He moved the adoption of the report and balance-sheet.

Mr. Timothy Holmes, the Honorary Treasurer, in presenting the balance-sheet, which showed a balance in hand of £74 at the end of 1881, said that in the first two months of 1882 forty-two new members had joined, and only two of the old members had left, the Association; so that at the moment of speaking the Association numbered 232 members and had a balance of £100 in the bank.

Professor Fleming Jenkin, as one of the consulting engineers, said the work of the Association, as carried out by Mr. Burton, the resident engineer, had been most satisfactory. He had been surprised at the bad state of London houses, which compared unfavourably with the state of houses in Edinburgh. If it were generally realised what was meant by 6 per cent. of the houses inspected being found in such a bad state, John-street, Adelphi, would be blocked with the crowds of people hurrying to join the Association. As a proof of the usefulness of such an association as this, he might tell them that during the present typhus fever epidemic in Edinburgh there had only been one case among the houses under the care of a kindred association, and that was contracted through visiting some very poor people. In conclusion he would throw out a suggestion to the editors of the technical and scientific papers, that they could not better serve their readers than by establishing "test cases,"—joining the Association themselves, or causing a friend to do so without letting the officers of the Association know who they were, and when they obtained their report telling their readers what they thought of it.

The adoption of the report and balance-sheet was seconded by Sir William Tyrone Power, and having been supported by Mr. E. C. Robins, architect, and Dr. Lauder Brunton, both of whom gave practical instances of the usefulness of this Association, was carried unanimously.

It was announced that after a ballot among the members present the whole of the outgoing members of Council were re-elected unanimously, with the addition to their number of Dr. John Macpherson, Surgeon-General Munro, and Dr. Allen Thomson.

We are requested to state that a report of this meeting will be printed *in extenso* as soon as possible, and sent gratis and post-free to any member of the medical profession applying for it to the Secretary, London Sanitary Protection Association, 7, John-street, Adelphi.

FROM ABROAD.

PALLIATIVES IN CANCER.

PROF. VERNEUIL, in a clinical lecture on cancer of the rectum (*Gaz. des Hop.*, January 12), observed that in incurable cases of cancer we may resort with advantage to palliatives, independently of internal medication, by manipulation of the tumour itself, which, without effecting a cure, may give great relief to pain and prolong life for a period. How to do this has been learned from the quacks, who, to inspire confidence in their patients, must be always doing something. And, indeed, if we wish to keep up the *morale* of our patients, we must not be content to stand by with folded arms. Local accidents also have to be combated, whether this be by the arrest of hæmorrhages, or the disinfection of foetid ichorous discharges. Then there are, and especially in cancer of the breast, large masses of substance which we may remove by means of caustics, and cancerous ulcers capable of being treated by antiseptics. In all these cases, according to the indications, we may give great relief, and produce a prolongation of life. "It is thus that I have seen women, the subjects of inoperable epithelioma of the uterus, but in whom large fungosities have been removed from time to time, receive great relief, and for a period resume their habits of life. I also have seen a woman with a cancer of the breast, for whom I prognosticated a duration of life of scarcely three or four months, survive for several years, thanks to tents of Vienna paste which an acrobat, turned cancer-curer, applied every two or three weeks, whenever the pains in the breast reappeared with severity. So that, seeing these respites procured by charlatans, I have been led to do something, and have recourse to palliatives for patients in whom all curative treatment was out of the question. This procedure possesses also another advantage—that of consoling the patient, assuaging her moral suffering, and giving her a certain amount of confidence in the future. It is thus a psychical means."

OPHTHALMIA NEONATORUM.

IN a clinical lecture on this subject delivered by Dr. D. S. Reynolds, Professor of Ophthalmology, Otology, and Laryngology in the Hospital College of Medicine, Louisville, after noticing the various views which have prevailed as to the cause of this affection, the lecturer goes on to observe (*Philadelphia Med. Times*, Dec. 3), with respect to its treatment, that it is a matter of primary importance to secure a free exit for the diseased secretion; and that for this purpose, after thorough cleansing, some kind of ointment should be applied to the lids. As a cleansing agent a long experience has taught him that a solution of chloride of sodium is the best, this being used very weak (two grains to the ounce) at first. This is to be dropped in at the inner angle of the eye, and allowed to flow out on the temporal side. The tears and matter having been thus washed away, and any remaining moisture removed by a wad of absorbent cotton pressed gently against the eye, vaseline is perhaps the best preparation to be applied to the surface and edges of the lids. "If great care and attention be not bestowed upon the eye, and cleansing measures resorted to sufficiently often to prevent the accumulated fluids from being retained between the lids and the globe, destructive changes will be liable to occur, and that too with astonishing rapidity; and even after a patient has well-nigh passed the dangerous stage, a neglect of these precautions will entail the dangers of a relapse. Relapses occur so suddenly and with such violent symptoms as to lead to the destruction of eyes that a few hours before seemed to be out of danger; therefore you are to regard with constant anxiety the presence of pus upon the conjunctival membrane." After protesting against the employment of strong solutions of nitrate of silver as most dangerous to the eye, Dr. Reynolds goes on to say:—

"In the treatment of conjunctival infections the greatest tenderness is necessary, and the mildest and most soothing agents should be employed. A two-grain solution of the chloride, applied as I have detailed, need only to be substituted by the stronger salts when the disease tends to become chronic. After two or three days, if the disease shows a disposition to remain severe, or to proceed, in opposition to

this treatment, the lid should be everted; and if there is present, as usually will be found to be the case in these circumstances, a disposition to hypertrophy of the papillæ, an astringent solution then becomes necessary, and for that purpose the sulphate of copper (five grains to the ounce) may be applied once in the twenty-four hours. This coagulates the mucus and pus, which, becoming irritating, should be promptly removed. Next in order may be mentioned the borate of soda, which, besides having the power of dissolving fibrinous matters, is more astringent and less stimulating than the chloride of sodium. In the more advanced stages, when hypertrophied papillæ are present, and perhaps have existed for weeks, it may be necessary to make even more powerful applications. The application should then consist of a saturated solution of the muriate of ammonia, or the solid stick itself should be applied to the surface of the everted lid and to the retrotarsal folds. Sulphate of copper should not be used in the solid form, but in solution varying in strength from five to ten grains to the ounce; and while it cannot safely be used more frequently than once in the twenty-four hours, the ammonia can be used with impunity several times during that period. If there be haziness of the cornea, sulphate of copper, in any form or strength, should be rigorously avoided. Should it be used, the ulcerated cornea is liable to perish, in consequence of the affinity copper has for soft structures. It is a powerful astringent, and vessels partially contracted become completely so under its application. Very cold applications are advocated: I think that it is a safe rule to be guided by, to consider cold inadmissible when there is much swelling of the lids, and hot applications likewise not indicated if swelling be absent. . . . It often happens, in the purulent ophthalmia of new-born infants, that extensive infiltration occurs into the loose connective tissue of the lids. The upper lid becomes enormously swollen, and of a scarlet hue; and there may be such violent action as to develop what is known as phlegmonous inflammation, the upper lid assuming a scarlet and angry appearance, being so tumefied, firm, and hard as to present the appearance of a huge mass of raw flesh hanging upon the cheek. . . . That the cornea may slough under these circumstances, constitutes the chief danger. The cases attended by this condition, which prevents your inspection of the eyeball, are to be met—and met promptly—by surgical interference. A pair of scissors should at once be passed into the external canthus, and the tissues divided freely out to the temporal margin, after which the bleeding may be encouraged by warm applications. The serum and blood escaping, the swelling will be found to subside quickly, and a restoration of the circulation being established, improvement soon becomes manifest. No fear of cutting must be indulged in these cases, offering, as it does, the only means of relief from local pressure. As long as pressure is exerted on the eyeball, there can be no benefit from any treatment. Another precaution to be taken is, that the child should be exposed to pure fresh air. It often happens that children lose their eyes through the carelessness of the nurse in this respect; and especially is this likely to happen in cold weather, when the doors and windows are kept closed. The air of the lying-in chamber is always contaminated, and the infant should spend most of its time in another room. Lastly, a strict watch is to be kept upon the progress of these cases; they should be seen once, at least, every twenty-four hours."

SMALL DOSES OF IODIDE OF POTASSIUM.—Although it is the fashion at present to prescribe large doses of the iodide in syphilis, with the view of obtaining rapid and permanent results, there are a number of hospital physicians and surgeons who still believe in the efficacy of small doses of this drug. Prof. Alonzo Clark, for instance, rarely, if ever, administers it in doses exceeding ten grains three times a day, while others are content with half that amount. A fact worthy of consideration is that the smaller doses have a marked effect upon those patients who, by the previous use of tonics, are in a good receptive condition for any of the powerful eliminatives. More, in fact, seems to be due to the good condition of the patient at the time than to the size of the dose. If there is a good solid constitutional foundation to work upon, the utmost reliance can be placed upon small doses of any medicine; and this seems to be pre-eminently the case with the iodide.—*New York Med. Record*, January 21.

REVIEWS.

Treatise on Therapeutics. Translated by B. F. LINCOLN, M.D., from the French of A. TROUSSEAU and H. PIDOUX. Ninth Edition, revised and enlarged with the assistance of M. CONSTANTINE PAUL. Three vols. 8vo. London: Sampson Low, Marston, Searle, and Rivington.

THIS work is part of Low's "Library of Standard Medical Authors," issued only to subscribers for the set of twelve volumes. No work that has reached a ninth edition, even should it not bear such an honoured name as that of Trousseau, would not call for review, unless for the fact of its being an old friend in a new dress. Bearing on its title-page the date of 1881, we have to consider whether this represents modern therapeutics or whether it is merely of historical interest.

In *limine*, we may observe that much of the original work has been omitted, such as the introduction, the pharmaceutical details, the physiological action of drugs, and various articles on methods of treatment not included under drugs, such as hydro-therapeutics, electricity, massage, etc. Nevertheless, we have three volumes of over 300 pages each. The first volume discusses reconstituents, astringents, alteratives, and irritants. Selecting from the chapter on alteratives the treatment of syphilis by mercury as a fair test for comparison with present modes of procedure, we find Boerhaave's method of saturation recommended in association with strict hygienic measures: this plan consists in the production of salivation, by calomel, to the extent of three or four pounds a day, kept up till symptoms have entirely ceased; usually, that was, for about thirty-six days. This treatment is said to be especially indicated in visceral syphilis and syphilitic affections of nerves, in which iodide of potassium is stated to have very little action. Nevertheless, a few pages further on, under the heading "Iodine," several authors are quoted, who speak favourably of iodides in nerve-affections due to syphilis. For infantile syphilis, bichloride of mercury baths are preferred to all others. For puerperal peritonitis, salivation is recommended, preferably by Law's method of hourly doses of calomel; but Velpéau's heroic treatment of this disease by the inunction of one to two ounces of mercurial ointment daily is not absolutely condemned.

Volume II. embraces antiphlogistic treatment, evacuates, exciters, and narcotics. Of these, antiphlogistic treatment occupies two-fifths of the volume, and in this chapter, more perhaps than in any part of the work, the changes in the treatment of disease wrought by time since the great master wrote are most vividly impressed upon us. Thus, in the treatment of pneumonia, though there are many observations showing that he was beginning to shake off the trammels of tradition and old practice, yet it is stated that at "the birth of a frank pneumonia" a rapid copious bleeding, "say four or five basons," so as to induce "extreme sedation of the pulmonary tissue and to make any fresh fluxion as weak and late as possible," is a good plan to adopt; if the symptoms return in spite of this, subsequent bleedings, smaller and at shorter intervals, are to be employed. In some cases, as a means of saving blood, kermes is recommended. In acute rheumatism, it is stated, some cases recover in a short time under the influence of Bouillaud's plan of bleeding *coup sur coup*. Much space is occupied in discussing the *pros* and *cons* of bleeding in the continued fevers and exanthemata, and though usually it is condemned with much force and powerful arguments, yet it meets with sanction in treating some cases of confluent small-pox; and, indeed, in this disease the treatment of Sydenham is adopted with but little modification.

From the third volume we select digitalis. It is classed among sedatives and contro-stimulants, along with antimony, bromides, colchicum, and veratria; and we learn that "it is indicated whenever there is hypertrophy with or without dilatation, and the ventricular contractions are energetic"; but next we read, "when the cavities of the heart are not only dilated, but also thinned and flaccid, digitalis, by checking the movements of the heart, increases the pathological state, and this is why we said above that its use is chiefly indicated in the commencement of hypertrophies"; and the authors explain the incontestably good effect sometimes seen where dilatation is present by assuming that "the symptoms assigned to passive aneurism"

(i.e., dilatation) "are by no means accurate, and very often co-exist with considerable hypertrophy." All this is almost diametrically opposed to our present knowledge; and, curiously enough, on the same page Bouillaud is quoted; who called digitalis the cinchona of the heart; also Ferrand, whose view is confirmed, that it increases vascular tension; and Murray and Gull, that it is dangerous in hypertrophy. These and other apparent contradictions are probably due to the interpolations of the later editors. We find a few of the newer drugs noticed, such as chloral, apomorphia, jaborandi, guarana, and iodoform, and many disused drugs, such as polygala, asarum, turpeth, navelwort, etc.

In making these extracts we desire to offer no disrespect to the illustrious Trousseau, who was not only abreast, but usually in advance, of the knowledge of his day; rather we wish to point out what great and fundamental differences a few years have made between the therapeutics of Trousseau and those of the present time: and we greatly question the utility of translating such a work as this, which, although one of the best of its contemporaries, is now rather for the library than for the busy practitioner or medical student. The volumes are got up in good style, the paper is good, and the type clear. The translation itself is, on the whole, well done, much of the author's easy style being preserved: though occasionally an awkward phrase, such as a "well person," appears. Many, however, would, we think, like Dr. Lincoln to have gone a little further, and, pending the completion of "Mayne's Dictionary," translated such obsolete or pedantic terms as saburra, lypothymy, kermes, collutories, looch, condom, and others, into the vernacular.

Experimentelle und kritische Untersuchungen zur Electrotherapie des Gehirns. Von Dr. L. LÖWENFELD. München, 1881.

Experimental and Critical Researches on the Electro-therapeutics of the Brain. By Dr. LÖWENFELD. Munich, 1881. Pp. 146.

Dr. LÖWENFELD'S monograph on the effects produced by the application of electricity to the head is very well timed. Our readers are aware that, long before Hitzig and Ferrier had proved the electric excitability of certain areas of the brain's surface, electro-therapeutists had been practically agreed that the brain of the living man was easily accessible to the galvanic influence; for such phenomena as giddiness, sleepiness, stupor, sickness, fainting, flashes of light, etc., which could be produced by the application of the constant current to the head, were not to be accounted for by any other supposition. Erb's experiments, showing that a feeble constant current, applied externally to the scalp of a dead subject, would cause contractions of a frog's limb which had been embedded somewhere in the cerebral substance, disposed finally of the theoretical objections which were still from time to time urged against the view that a current of moderate force could be made to traverse the brain without difficulty. It therefore appeared likely that a more systematic use would be made of electricity in brain-affections; yet not much progress was made in this direction until Dr. Althaus, in a paper contributed to *Brain* for October, 1880, and April, 1881, led the way in utilising the results of cerebral localisation for this branch of therapeutics.

A further step in this direction has now been made by Dr. Löwenfeld, of Munich, who, in the book before us, has given a good critical digest of most previous researches on this subject (pages 1-72), and also made an experimental inquiry into the effects of both currents, when applied to the brain of rabbits and kittens, on intracranial circulation (pages 73-136). The results at which he has thus arrived are the following:—

Both the induced and constant current have a distinct influence on the circulation of blood within the skull; and this is more marked when the brain is in its normal condition than when it is inflamed. The effects of the poles, or, as Löwenfeld puts it, of the direction of the current, differ in this wise—that the inverse current causes dilatation of the cerebral arterioles and accelerates circulation, while the direct current, on the contrary, constricts the vessels and diminishes the activity of the circulation in the brain. These effects were noticed when one pole was applied to the skin at the nape of the neck, and the other to the cerebral substance which had previously been laid bare. When the current was sent transversely through the head, the anode appeared

to cause dilatation, and the cathode constriction of the arterioles. These effects were not temporary, but persisted the whole time that the current continued to flow; and in one case the constricting influence of the cathode was so lasting that the subsequent action of the anode was unable to overcome it. The degree to which the arterioles of the brain and of the ears of the animals were filled with blood did not exactly correspond, so that conclusions drawn from the calibre of the external to that of the internal arterioles may be fallacious.

The author therefore thinks that by galvanisation of the head the amount of blood in the brain may be either increased or diminished, and that morbid conditions which are owing to disturbed cerebral circulation and nutrition may be influenced by such a proceeding. As the direction of the current seems to be of importance, he recommends to use the cathode where there is abnormal dilatation, and the anode where there is undue constriction. Such proceedings cannot but be of influence upon the nutrition and function of the central nerve-cells and fibres. Our author is, however, not unduly sanguine, for he contends that if electricity is to be useful the morbid changes must not be too extensive, and that even in ordinary anæmia or hyperæmia electricity cannot always be successful. Thus, if hyperæmia be owing to undue cardiac pressure, or to mechanical impediments to circulation, and if acute anæmia be consequent on losses of blood or cardiac debility, other remedies may be more effective. It is generally in chronic ailments of the brain that electricity is found to be of use; and even if they are incurable, as tumours or hæmorrhage, good may be done by improving the circulation, and thus removing symptoms owing to impairment of the latter. When voltaic alternatives were used, Löwenfeld saw general convulsions in rabbits; and this has led him to the conclusion that the current is able to modify the general excitability of the brain. He thinks that it may overcome undue resistance, increase the energy of nervous force, diminish excessive excitability, and re-establish a proper balance in the cerebral functions. Finally, the molecular changes which are constantly going on in the neuroglia, the bloodvessels, the lymphatics, and the fluid in the ventricles and between the membranes, may, by the electrolytic and electro-mechanical action of the current, be modified.

With regard to the mode of application, the author believes the resistance which the current encounters on its way to the brain sufficiently considerable to contra-indicate a minimal current-strength. On the other hand, a powerful current is known to do harm; and we have therefore to steer between the two extremes. The current should be feeble at the commencement of the application, and be gradually increased with the aid of the rheostat. The galvanometer does not find much favour in his eyes, as in practice we encounter individual differences in the resistance of the soft parts and bones, and the excitability of nervous matter itself, which militate against a hard-and-fast rule for using so many "milliwebers." The degree to which the magnetised needle is deflected does not, therefore, give us such a useful indication as the sensation actually perceived by the patient. If a very gentle current causes vertigo and brilliant flashes, the case is probably not suitable for electricity; on the other hand, if only slight sensations are caused by a moderate current, it is better not to increase the force much, as otherwise unpleasant symptoms might follow the application. The current should not be used longer than one or two minutes at a time, and be direct for limiting and inverse for promoting circulation. In many cases the principal object should be to restore the tone of the cerebral arterioles, and this is best done by alternating the direction of the current. The centres of vasomotor action in the medulla oblongata and the cervical portion of the cord should be acted upon, while the other pole is applied as near as possible to the presumed seat of the disease.

From this brief summary it will be seen that Dr. Löwenfeld's book contains much that is of interest to the physiologist as well as to the physician. We cannot, however, help remarking on an important discrepancy in the results of his experiments on animals, of which the author himself does not appear to be aware. How is it that if the inverse current caused dilatation, and the direct one constriction of bloodvessels, when flowing longitudinally through the brain, the opposite should have taken place when the current flowed transversely through the organ—

viz., dilatation at the anode and constriction at the cathode. It is impossible to reconcile these two statements, and we are therefore compelled to say that one or the other series of observations must be incorrect. It would have been preferable if Dr. Löwenfeld had simply recorded the appearances noticed at either of the poles, without occupying himself with the "direction" of the current. We also regret that the author should not have added any of his clinical experience in this particular branch of practice; and we should have liked to hear from him somewhat more definitely in which class of cases he would increase, and in which he would diminish, the activity of the circulation in the brain. In spite of these blemishes, his treatise deserves attention, and may, we trust, stimulate other observers to pursue this line of investigation.

GENERAL CORRESPONDENCE.

"UNFERMENTED WINES."

LETTER FROM MR. J. DIXON.

[To the Editor of the Medical Times and Gazette.]

SIR,—It seems hopeless to argue with teetotalers. For a sober man, who has all his life taken wine with his meals, to give it up and drink nothing but water, because A muddles himself with beer, and B maddens himself with gin, seems little short of insanity. And now some religious persons are taking up the position that Christians, as such, ought to be total abstainers; that is to say, be better than Him from whom they derive their name. He must occasionally have drunk wine, otherwise the Pharisees could not have taunted Him with being a "wine-bibber." But then these good people have made the discovery that wine such as the early Christians drank was *unfermented*! The term "unfermented wine" is, of course, self-contradictory, wine being the fermented juice of grapes. No fermentation, no wine. Is it credible that people undertook all the labour of planting and tending vines, gathering the fruit, and crushing it in the press, for the sake of drinking some rosy grape-juice? And how long would such sickly stuff have kept sweet in the climate of Asia and southern Europe?

If the wine which the early Christians drank at their love-feasts was unfermented, how is it that St. Paul had to denounce the behaviour of some of the Corinthian converts, who, at these very love-feasts, he says, used to get drunk upon it?

I am, &c.,

February 23.

J. DIXON.

PROSECUTION BY THE GERMAN HOMŒOPATHS.—The *Deutsche Med. Woch.*, February 11, states that Dr. Golt-dammer having made use in a debate in the Berlin Medical Society of the words, "We have quacks in our own camp, such as the homœopathists and similar legalised charlatans," was prosecuted for libel by the Berlin homœopathists. The judgment was in his favour in the first court in which the case was taken, and again in the second, and now on appeal. [Legal matters seem to travel as slowly as with ourselves, as the words complained of were spoken as long ago as May, 1880.]

GERMAN PREPARATIONS OF IRON.—Dr. Walton, writing from Leipzig to the *Boston Med. Journal* (January 12), states that there are three preparations of iron widely used in Germany, which, unknown or but little known beyond its limits, are very valuable both as regards their therapeutical effects, their palatability, and their tolerance by the digestive organs. For the details of the mode of preparing them, and other particulars, we must refer our readers to the *Journal*. They are probably procurable at any of the German druggists in England, and are entitled—1. "*Ferrum Oxydatum Saccharatum Solubile*," or *Eisen Zucker*, given in the form either of powder or syrup; 2. "*Tinctura Ferri Pomata*," a weaker and pleasant preparation, suitable for children; and 3. *Pyrophosphosäures Eisen*, which is soda-water containing the pyrophosphate of iron in clear solution, and drunk at dinner. Another form extensively used is the "*Syrupus Ferri Pyrophosphorici cum Ammonio Citrico*," formerly known as "*Syrupus Napoleonis*," from its having been taken by Napoleon III. It is a very pleasant preparation, but not to be compared with the *Eisen Zucker*.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 21.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

THE CASE OF HEREDITARY CEREBRAL SCLEROSIS.

THE Committee's report on this case (Dr. Harbinson's) was read by Dr. PAYNE. There was extensive evidence of nerve degeneration throughout the brain. The changes seemed to be those of general atrophy.

HYPERTROPHY OF THE HEART.

Dr. SAMUEL WEST showed this specimen, which he had removed from an ostler, aged forty-nine, who had died in the Royal Free Hospital. The cardiac condition was thought to be due to renal changes; but after death, beyond congestion, the kidneys were found unaltered. The heart weighed twenty ounces; it was slightly fatty; its valves were normal; the hypertrophy was confined to the left ventricle.

Dr. MACKENZIE asked as to the condition of the small arteries; disease in them might exist without kidney-disease.

Dr. S. WEST replied that the vessels in the kidney were healthy. He had not examined those of other parts with the microscope.

ACUTE FATTY DEGENERATION OF HEART.

Dr. S. WEST showed this specimen also. It had been removed from a lad aged sixteen, who, two months ago, had had an attack of subacute rheumatism. He died a few days after his admission to hospital, and there was no other lesion of importance—no pericarditis, and only slight endocarditis on the valves; but the heart muscle was yellower than usual: when cut under water, the fat oozed out in drops.

UNSYMMETRICAL GOUTY JOINTS—OSTEOMA OF TIBIA.

Dr. NORMAN MOORE showed joints from three cases of gout and an osteoma of tibia. 1. Great toe joints from a cellar-man, aged thirty-seven, who died with three cerebral hæmorrhages. He had very small granular kidneys. The left toe showed an abundant uniform deposit of urate of soda, while the corresponding right joint and all other joints examined were quite free. As the deposit was too large to have been the result of one attack, the specimen was interesting as showing that the symmetrical affection of joints occurs late. 2. Left knee-joint of a man, aged forty-seven, who died of cerebral hæmorrhage. He had small granular kidneys. The knee-joint showed a scattered deposit of urate of soda, with some erosion of the patella. The left toe was coated. The joints on the right side were normal. The case showed an appearance not hitherto recorded—a considerable deposit of urate of soda in the prævertebral fascia of the neck. 3. Great toe joints from a man who died of pleuro-pneumonia, aged forty-five. He had granular kidneys. Right great toe had scattered deposit; left none; other joints free. The tibia showed a uniform enlargement, following the long axis of the lowest third of its shaft. This osteoma consisted of dense bone externally. The medullary cavity and outer part of the bone were quite normal. The new growth, he thought, was certainly not a node.

HYPEREMIA AND HÆMORRHAGES IN THE MEDULLA OBLONGATA.

Dr. HALE WHITE exhibited sections showing these changes. Lately he had made post-mortem examinations on three children who had died without any cause for death being discoverable to the naked eye. In all these cases he had examined many microscopical sections of the medulla. Two were healthy, but the third showed very markedly the changes mentioned above. This was the case of a child who had nearly recovered from harelip operation when one night the temperature rose to 100° Fahr. and the breathing became a little difficult, but not distressed enough to cause any apprehension. In about five hours the child died quite suddenly, almost before the nurse could take it out of bed. It was not livid, but rather paler than natural. Putting these facts together with the microscopical changes, Dr. Hale White considered that the bad

breathing and the rise of temperature were due to the hyperæmia affecting the vital spot, and that the actual death was due to a considerable hæmorrhage which he detected with the microscope just outside the vagal nucleus, which, being thus stimulated, caused sudden death, owing to the cardio-inhibitory action of that nerve. It was pointed out that we had in this case an example of acute inflammation of the medulla oblongata; in other words, the same change as affects the anterior cornua in anterior poliomyelitis. It was pointed out that these specimens showed the effects of the influence of the implication of a vital nucleus, whilst in diabetes, tetanus, hydrophobia, etc., in which there had been similar changes described, although the whole medulla might be affected, yet the patients never died from affection of the cardio-inhibitory centre or vital knot.

Dr. BUZZARD remarked that when lecturing on infantile paralysis with facial paralysis he had pointed out the extreme rarity of the case, and had suggested that the lesion in that particular case was implication of the facial as well as of the vagal nucleus, so causing death.

Dr. H. JACKSON referred to two cases which bore out Dr. White's views.

Dr. WHITE briefly replied.

SARCOMA OF BLADDER.

Mr. ROGER WILLIAMS said the specimen was removed from the body of a woman aged fifty. She had passed gravel and blood in the urine for two years. There were enlarged glands in front of sacrum. The tumour in the bladder was as large as a hen's egg, broadly pedunculated, and of a cauliflower-like appearance on section. Microscopically it consisted of nucleated cells, with little or no true stroma.

Mr. BUTLIN referred to the extreme rarity of this form of bladder-tumour.

SUPPURATION OF WRIST-JOINT.

Mr. WILLIAMS also showed this specimen. The bones of the wrist-joint were all denuded of their cartilage, while the bones of the intercarpal joints were healthy. This seemed to confirm the view that the synovial sacs of the wrist-joint and of the carpal bones were quite distinct.

DOUBLE POPLITEAL ANEURISM.

Mr. GODLEE showed the thoracic and abdominal aorta and the arteries of the lower limbs of a man on whom he had ligatured both the femorals for popliteal aneurisms. The right artery was tied on August 27, 1878, and was converted into a fibrous cord at the seat of ligature, as well as for some distance above and below, and the aneurism itself was completely obstructed and almost obliterated. The left artery was tied on March 12, 1879, and presented similar appearances at the seat of ligature and at the aneurism, except that the latter was less completely obliterated. Between the ligature and the aneurism on the left side the vessel was obstructed by a comparatively recent clot, while on the right side the vessel in this situation was patent. Some recent clot blocked the right artery between the part originally obstructed above the ligature, and the origin of the profunda. The patient died in the summer of 1881 of acute pneumonic phthisis, and it was suggested that the manner of death might have had something to do with the recent clotting. The specimen was interesting as showing the condition of the vessels so long after the application of the ligatures, and also as illustrating the fact that, when tied with suitable catgut, the ultimate result is almost the same as that produced in a successful case of ligature with silk or hemp.

CHRONIC HYDROCEPHALUS WITH MENINGOCELE.

Dr. BAXTER showed this specimen. The patient was a boy aged two years and three months. Nothing unusual was noticed about him till he was six weeks old, when he had a severe attack of convulsions. At the age of three months his head was observed to be unduly large. A soft prominence was noticed on the right side of the forehead when he was five months old. On admission he showed no signs of muscular paralysis or rigidity, nor of any disturbance of his general health. Special senses unaffected. Intellectual growth retarded. Could not raise his head from the pillow on account of its great size (circumference twenty-seven inches, taken an inch and a half above the eyebrows). The head presented the usual characters of hydrocephalus

its symmetry, however, was broken by a remarkable prominence, elongated from before backwards, and extending from a point two inches above the right eyebrow to the anterior fontanelle—a distance of seven inches. This prominence was tense and fluctuating; to the finger it gave the impression of a thin-walled sac containing fluid. The skin over it was normal in colour and appearance. The protrusion did not appear to have occurred through the frontal suture, but through a wide fissure, with jagged and everted edges, in the right half of the frontal bone. The pupils were equal and sensitive to light; ophthalmoscopic examination, however, showed partial atrophy of the right, incipient of the left disc, without a trace of past or present papillitis. After spending two months in hospital, and passing through an attack of whooping-cough, the patient died. He exhibited symptoms of acute cerebral disturbance for forty-eight hours previously. Shortly before death, the tumour subsided into a deep hollow, whose floor showed pulsation synchronous with that of the heart. At the post-mortem examination upwards of five pints of clear liquid escaped from the ventricles; a thin, symmetrical capillary extravasation was found in the meshes of the pia mater on the under surface of the cerebellar lobes. There were signs of recent basilar meningitis (without tubercles), and undoubted obliteration of the cerebro-spinal opening by a thin opaque membrane, evidently the residue of a former, extremely limited, meningitis. In the right half of the frontal bone (viewed from within) was an oval opening, four inches by two. Over the posterior half of this opening a fibrous prolongation of the dura mater was stretched; its anterior half led into the interior of the tumour. The roof of the latter was continuous with the external periosteum; there was no pouch of dura mater extruded from the skull. The points of special interest in the above case are:—1. The unusual form and situation of the meningocele. 2. The existence of occlusion of the cerebro-spinal opening, in relation to the late Mr. Hilton's theory of the causation of hydrocephalus. Dr. Baxter had been on the look-out for this morbid change for upwards of ten years; but this was the first instance in which he had found it unequivocally present. He regarded Mr. Hilton's theory as inadequate to explain the development of progressive intraventricular effusions; for although it might be true that the fluid could not escape from the ventricles with sufficient ease to compensate for the variations in the bulk of the brain-matter due to frequent and sudden alterations in its blood-supply, and although this might account for the disagreeable symptoms following any cause liable to excite cerebral hyperæmia, the first occurrence of the effusion remained to be explained. It did not appear why the excess of fluid should not be gradually absorbed by the vessels of the choroid plexuses. 3. The optic chiasma had been examined by Dr. Walter Edmunds, who found a tract of neuritis occupying a portion of the transverse section of the nerve. This discovery was of considerable interest, showing that partial atrophy of the disc might result from an equally partial descending neuritis, such as would not, at any period of its course, produce the ophthalmoscopic changes characteristic of papillitis.

Dr. MACKENZIE referred to three cases where he had found the cerebro-spinal foramen closed. He regarded chronic hydrocephalus as caused in this way.

Dr. LEES thought that hydrocephalus due to obstruction of the cerebro-spinal foramen and adjacent subarachnoid space was by no means uncommon. He had seen at least a dozen cases, probably more, in which the two conditions had been found post-mortem. Such obstruction might be either by inflammatory lymph if the case were rapidly fatal, or by adhesions and cicatricial structures if the case had lasted a longer time. The clinical symptom which especially accompanied such inflammation was retraction of the head, and if the case did not recover this was followed by a gradual enlargement of the head. This sequence of events was now so well established that the occurrence of hydrocephalus might often be foretold. It seemed to him not difficult to understand that if an obstruction to the drainage from the ventricular cavities existed, gradual distension must ensue.

Mr. HUTCHINSON was most interested in the local yielding of the skull-cap. Some time ago he had shown a case in which the whole of the hydrocephalic enlargement was outside the skull. The bones had ossified and united prematurely. The secretion of fluid appeared to have caused

softening and yielding at one spot. The child lived five or six years, and died after an operation which another surgeon had undertaken for its relief.

Mr. EVE pointed out that an occlusion of the foramen of Magendie would not be competent to shut off the subarachnoid space of the brain from that of the cord. He had found, by injecting coloured fluids into the subarachnoid space of the cord, that the injection passed around the whole medulla and over the pons Varolii into the cerebral subarachnoid spaces, and therefore that a basi-meningitis, which glued the arachnoid to the pia mater around the whole circumference of the medulla, would alone be capable of separating the ventricular and subarachnoid spaces of the brain from the subarachnoid space of the cord. The anatomical importance of the foramen of Magendie had been exaggerated, since the fourth ventricle communicated with the subarachnoid space at the base of the brain by two lateral openings.

Mr. BARLOW agreed with Mr. EVE as to the insufficiency of closure of Hilton's canal as the cause of hydrocephalus, and also with Dr. LEES as to the inflammatory changes at the base as a more probable cause. The cases of congenital hydrocephalus probably had a different causation.

Dr. BAXTER replied. He had carefully looked for this basal meningitis, but in the six cases he had examined he had not seen it once. He felt pretty certain, therefore, that the hydrocephalus must sometimes have some other cause.

LIVING SPECIMENS.

Mr. HUTCHINSON showed—

1. A young woman, the subject of extensive Enchondromatous Tumours on the Fingers of both hands.

2. A child with an Anomalous Nerve-Disorder (to be subsequently reported on).

Mr. R. W. PARKER showed—

1. An infant with a Congenital Cystic Hygroma of the Neck.

2. An infant with an Unusual Form of Spina Bifida over the lowest part of the spine, not quite occupying the middle line.

COMPARATIVE PATHOLOGY—CARD SPECIMENS.

Mr. FREDERIC EVE showed—

1. A case of Alveolar Sarcoma from the Breast of a Plover.

2. Hypertrophy of the Hoof of a Horse. He thought this was due to the fact that the horse had been pastured in soft marshy ground, where the hoof could not be worn down.

Dr. MOORE thought this disease was sometimes hereditary, and mentioned a valuable race of horses which had become worthless from this cause.

3. Chronic Synovitis of the Radio-carpal Joint of a Horse. There were hernial protrusions of the synovial membrane into the sheaths of the tendons, similar to cases described by Mr. Marrant Baker.

The Society then adjourned.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, FEBRUARY 6.

Mr. S. LEE RYMER, President, in the Chair.

Mr. HENRY SEWILL called attention to a communication recently made by Dr. Magitot to the French Académie de Médecine, in which he stated that alveolar periostitis was always met with in the mouths of patients suffering from diabetes mellitus, and was, therefore, of great assistance in forming a diagnosis of that disease. He had himself met with two cases which appeared to him to bear out the correctness of this observation, and he should be glad to hear if others had met with the same experience. He also mentioned the case of a young gentleman who consulted him about a small cavity in an upper molar. Whilst Mr. Sewill was preparing the cavity for stopping, the patient had two short but distinct epileptic seizures. Mr. Sewill remarked that the nature of these attacks in the early stages of epilepsy was often unrecognised by the patient and his friends, and it was therefore the duty of any practitioner who might observe them to give timely warning of their true import.

Some other cases of interest having been brought forward

by Messrs. S. J. Hutchinson, Henry Moon, Browne-Mason, and Dr. Campbell,

The PRESIDENT proceeded to deliver his inaugural address. After thanking the Society for the honour it had conferred upon him by electing him to his present distinguished position, he referred to the recent alteration in the by-laws, which enables the Society occasionally to elect a President from among the provincial members—a change of which he had been the first to reap the advantage. He then went on to speak of the part taken by the old College of Dentists in the reform movement of 1856 and following years. This institution—in the management of which he had, as Secretary, taken a very active part—had been established for the purpose of carrying on the education and licensing of dentists on an independent basis, it being thought that too strong a feeling existed in the medical profession to allow of the institution of examinations and the issue of diplomas in a speciality of any kind by any of the medical corporations. When, however, it was announced that the College of Surgeons, after long deliberations, had come to the conclusion that it would tend to the public advantage to grant diplomas in dental surgery, the duty of those who had the direction of the affairs of the College of Dentists at once became clear. To have continued the College on an independent basis would have been unwarrantable under the circumstances. Instead of helping on a good cause, it could only have carried on an embarrassing opposition, and postponed indefinitely the attainment of fraternal concord. Communications were accordingly opened with the Council of the Odontological Society, which had throughout favoured the establishment of the dental as a branch of the medical profession, with a view of arranging an amalgamation. This was soon consummated with entire cordiality on both sides, and he had no hesitation in saying it had never for a moment been regretted. Had the profession continued to be racked with widespread dissensions the Dentists Act of 1878 would never have been secured. As it was, the opposition to the measure—arising from a small section of men with impracticable views—was easily overcome. This was unquestionably the most important event which had happened during the twenty years that had elapsed since the amalgamation. Its healthy action had already become apparent, but it would require some time yet before all its latent powers could be fully developed. Its elevating influence would increase with each succeeding year. He then spoke of other signs of progress in the profession; of the growth of the British Dental Association; the establishment of new schools in the provinces; the flourishing condition of the dental societies; the progress of dental literature and journalism; and concluded by referring to some of the unsolved problems still before the profession, the most important being a clearer knowledge of the conditions which would favour longevity in the dental organs.

MEDICAL STUDENTS IN GERMANY AND SWITZERLAND.

—In the twenty German Universities there are registered for the winter session, 1881-82, 22,792 students (21,551 German and 1241 foreign), and of these 5002 (4692 Germans and 310 foreigners) are medical students. In the four Swiss Universities there are registered for the session 1881-82, 518 medical students (472 men and 46 women).—*Deutsche Med. Woch.*, February 4.

INSANITY AS A GROUND OF DIVORCE.—The Committee appointed by the French Chamber of Deputies on the proposed law of divorce have had Prof. Charcot and Drs. Legrand du Saulle and Magnan before them. Prof. Charcot and Dr. Magnan have expressed their opinions that in no case would it be possible to declare in an absolute manner that the insanity was incurable. Such incurability can only be established exactly in general paralysis, and in this disease the patient dies within a period not exceeding five years, so that the expiration of this period, which brings a natural dissolution of the marriage, may be always waited for, and in general would not be longer than that produced by the legal delays consequent on a trial. The Committee has rejected M. Guillot's amendment for inserting in the Bill insanity as a cause of divorce. "We should have thought," the *Union Médicale* observes, "that insanity which may be, even rigorously speaking, curable should, when in all cases it is so terribly hereditary, have rather been considered one of the most urgent causes of divorce."

OBITUARY.

GEORGE BODINGTON, M.D. ERLANGEN, L.R.C.P. ED., L.S.A.

DR. GEORGE BODINGTON, whose death occurred on February 5 at Sutton Coldfield, in his eighty-third year, was a well-known and widely respected practitioner. He was a descendant of one of the old yeoman families of Warwickshire—the Bodingtons of Cubbington, who have tilled their own land in that parish since the time of Henry VIII. As a boy, he was sent to Magdalen College School at Oxford, and when seventeen years old was apprenticed to a Mr. Syer, a surgeon, of Atherstone, by whom he was transferred a year later to a Mr. Wheelwright, a surgeon in the City of London. He afterwards became a student at St. Bartholomew's Hospital, and obtained the L.S.A. in 1825. On this qualification Dr. Bodington began to practise in Birmingham; but in a very short time he removed to the neighbouring village of Erdington, where he carried on a very successful practice till 1843. In this year he determined to devote his whole time to the treatment of the insane at the Driffold House Asylum, Sutton Coldfield, of which he had become proprietor in 1836. At this work he continued till his retirement in 1868, when he handed the Asylum over to his son, Dr. G. F. Bodington. After that date he mainly occupied himself with public work in connexion with the Royal Borough of Sutton Coldfield, of which he was Warden in the years 1852-53, 1853-54, and up to 1881 one of its most active members and magistrates. Dr. Bodington was not a silent member of the profession. An acute observer, a vigorous thinker, and a good solid and fluent speaker, he was always able to take his share in the public work connected with his position. In politics he was a man of strong opinions, and to the last was an ardent Protectionist, never wavering in his faith, but ever earnest in advocating the theories in which he believed.

It is more especially, however, as a forgotten medical author that we would speak of Dr. Bodington. His first medical essay was "A Letter on a Case of Asiatic Cholera: addressed to the President and Council of the Central Board of Health, London," and published in 1831. This pamphlet was a vigorous protest against the use of bleeding and calomel, and displayed the same tendency to think and reason for himself which made his later "Essay on the Treatment and Cure of Pulmonary Consumption" (1840) so very noteworthy. In this little book Dr. Bodington anticipated by many years the modern views on the treatment of phthisis. In 1840 consumptives were closely and carefully confined, from a fear of the evil influence of cold fresh air. Against this Dr. Bodington earnestly protested as "forcing them to breathe over and over again the same foul air contaminated with the diseased effluvia of their own persons." Arguing against the value of antimony, calomel, and bleeding, he urged the free administration of nutritious food and stimulants, with plenty of exercise in pure air, and, if possible, dry, "frosty air." He did not value sea air highly, but contended for the drier air of inland districts. His great specific was cold dry air, which, he said, had a most powerful influence in "healing and closing of cavities and ulcers of the lungs." It is remarkable that a village doctor should have arrived in 1840 at these conclusions, which anticipate some of our most recent teachings. It is less remarkable that he met with the usual fate of those who question authority. He was severely handled by the reviews, and so discouraged from pursuing observations which might have been of the greatest value. In 1857, some years after he had given up general practice, a writer in the *Journal of Public Health* unearthed Dr. Bodington's treatise, and did him tardy but ample justice. We are glad again to claim for a general practitioner the high credit of having been the first, or among the first, to advocate the rational and scientific treatment of pulmonary consumption.

SMALL-POX AND FEVER HOSPITALS.—A meeting of the Royal Commission on Small-pox and Fever Hospitals was held on Tuesday. There were present at the meeting Lord Blachford, Sir James Paget, Sir Rutherford Alcock, Mr. A. W. Peel, M.P., Mr. E. L. Pemberton, M.P., Dr. A. Carpenter, Dr. J. Burdon Sanderson, Dr. W. H. Broadbent, Mr. Jonathan Hutchinson, and the secretary, Mr. Nathaniel Baker.

MEDICAL NEWS.

UNIVERSITY OF DUBLIN.—At the Hilary Term or Spring Commencements, held on Shrove Tuesday, February 21, the following degrees in Medicine and Surgery were conferred by the Senate under the presidency of the University *Caput*, the Right Hon. John Thomas Ball, LL.D., Vice-Chancellor of the University; the Rev. the Provost of Trinity College; and the Rev. James W. Barlow, Senior Master non-Regent.

Baccalaurei in Chirurgia.—Henricus St. John Brooks, Jacobus Craig, Thomas Ricardus Gillespie, Dawson Henry, Georgius Chadwick Kingsbury, Georgius Archibaldus Marshall, Edvardus Franciscus Pigot, Rev. Sydney Gerald Turpin, Ludovicus Tarleton Young, Bertram Coghill Alan Windle.

Baccalaurei in Medicina.—Henricus St. J. Brooks, Jacobus Craig, Jacobus Gloster, Johannes Gulielmus Gowland, Georgius Chadwick Kingsbury, Georgius Archibaldus Marshall, Patricius Neary, Edvardus Franciscus Pigot, Travers Robertus Montgomery Smith, Rev. Sydney Gerald Turpin, Ludovicus Tarleton Young, Bertram Coghill Alan Windle.

Doctores in Medicina.—Thomas Arturus Baldwin, Josephus Dallas Pratt, Rev. Sydney Gerald Turpin, Johannes Waugh.

The Rev. Professor Houghton, M.D. (Senior Lecturer), in distributing the medals to the Moderators, said it was with the greatest pleasure that he introduced to the notice of the Provost and Senior Fellows Mr. Louis Tarleton Young, the most distinguished medical student who had ever left their walls. Mr. Young had won during his collegiate career the highest distinctions the College could award, both in Arts and Medicine. The medal for experimental science he now presented him was but a small part of his achievements. He was their Medical Travelling Prizeman and Scholar. He had obtained first place for Her Majesty's Indian Medical Service, and on leaving the Army Medical School at Netley had won every prize it was possible for him to carry off. So satisfied were the Government with his abilities and acquirements that they had, through Sir Joseph Fayrer, K.C.S.I., at the application of the Regius Professor and himself, granted him six months' leave to complete his education at Vienna, *en route* for India, and so comply with the conditions of the Travelling Prize.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on Thursday, February 23:—

Alderton, Herbert Charles, Dispensary, Stoke Newington, N.
Bevan, Henry Crook, 29, Frederick-street, W.C.
Cooper, George Frederick, St. Thomas's Hospital, S.E.
Day, Thomas Montagu, Harlow.
De Lom, Henry Anthony, 31, Denbigh-street, S.W.
Fell, Walter, 193, Earl's Court-road, S.W.
Harper, Charles John, 2, Station-road, Finchley, N.
Joseph, John Baptiste Edgar, Trinidad.
Parry, Robert, Festiniog.
Prabhakar, Govindrao Bhau, 48, Saltoun-road, S.W.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 23:—

Ford, William Henry, Melbourne, Victoria.
Furnival, Francis Henry, Muston, Nottingham.
Hudson, Ernest, Harleston, Norfolk.
Lewers, Arthur Hamilton N., 55, Torrington-square, W.C.
Stacpoole, Charles, 127, Inverness-terrace, W.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Baird, T. Patrick, Aberdeen University.
Williams, Charles, Middlesex Hospital.

BIRTHS.

ALABONE.—On February 27, at Lynton House, Highbury Quadrant, London, N., the wife of E. W. Alabone, M.R.C.S., of a son.
CHANT.—On February 23, at 218, Adelaide-road, South Hampstead, the wife of T. Chant, M.R.C.S., of a son.
DOUGLAS.—On February 26, at 12, New-walk, Leicester, the wife of Claude Douglas, M.R.C.S., of a son.
DUIGAN.—On February 22, at 23, Edith-road, West Kensington, the wife of Daniel John Duigan, C.B., M.D., Deputy Inspector-General of Hospitals and Fleets, of a son.
GILL.—On January 23, at Richmond, Cape of Good Hope, the wife of Edmund Richard Gill, District Surgeon, of a son.
GURDON.—On February 20, at Hopton, Thetford, the wife of Edwin J. Gurdon, L.R.C.P., of a daughter.
HARE.—On February 2, at Baroda, the wife of Surgeon-Major R. W. Hare, of a son.
HARINGTON.—On February 3, at Secunderabad, India, the wife of H. N. V. Harington, L.R.C.P., I.M.D., of a daughter.

- JOHNSTON.—On February 22, the wife of John Johnston, M.R.C.S., Maidstone, of a daughter.
- NORMAN.—On February 16, at Edde Cross, Ross, the wife of J. W. Norman, F.R.C.S., of a daughter.
- ORMEROD.—On February 25, at 25, Upper Wimpole-street, Cavendish-square, the wife of Joseph Arderne Ormerod, M.B., of a daughter.
- SMITH.—On February 28, at 1, Clapton-square, the wife of Roland Smith, M.R.C.S., of a daughter.
- THOMSON.—On February 27, at 40, Ladbroke-grove, Kensington-park-gardens, W., the wife of William Sinclair Thomson, M.D., of twin daughters.
- TRUMAN.—On February 24, at 11, Southwick-street, Hyde-park, the wife of Charles Edwin Truman, M.A., M.R.C.S., of a daughter.
- WHITING.—On February 24, at 204, Ebury-street, Eaton-square, S.W., the wife of James D. C. Whiting, M.R.C.S., of a son.

MARRIAGES.

- COOKE—CHALMERS.—On February 21, at St. Leonards-on-Sea, John Cooke, M.B., of Hastings, to Alice, widow of J. F. Chalmers, Esq., of the Manor House, Ham.
- DUNBAR—SAUNDERS.—On February 21, at Bayswater, James John Macwhirter Dunbar, M.D., eldest son of Surgeon-General J. A. Dunbar, M.D., Indian Army (retired), to Mary, daughter of George Saunders, M.P., C.B.
- MILNER—CHAMPNEYS.—On February 21, at Penge, William Haultain, youngest son of the Rev. Edward Milner, to Emily Margaret, daughter of Henry Montagu Champneys, F.R.C.S., of Hamilton House, Penge.
- MITCHELL—RAMSDALE.—On February 28, at East Dereham, Alexander Mitchell, M.D., of Burton House, Great Yarmouth, to Ellen Eugénie, daughter of the late Robert Ramsdale, Esq., of East Dereham.
- PRICHARD—ADYE.—On February 21, at Bradford-on-Avon, Arthur William Prichard, M.R.C.S., Surgeon to the Bristol Infirmary, etc., third son of A. Prichard, M.D., F.R.C.S., of Clifton, to Sarah Ann, daughter of W. Aye, M.D., of Bradford-on-Avon.
- ROBSON—JAMIESON.—On February 21, at South Kensington, Edward Shedden Robson, B.A., M.R.C.S., L.R.C.P., to Edith Isabel, youngest daughter of the late James Young Jamieson, Esq., of Gainford House, near Darlington.
- ROYLE—CLEGG.—On February 18, at Durham Massey, Arthur Fanshawe Waterloo, eldest son of P. Royle, M.D., J.P., of Manchester, and Vernon Lodge, Brooklands, to Harriett, second daughter of the late John Clegg, J.P., of Altrincham.
- WILLIAMS—BIRKBECK.—On February 21, at Welbecks, Howell Williams, L.R.C.P., M.R.C.S., of Richmond, to Adelaide, daughter of John Clarkson Birkbeck, Esq., of Hazel Brow, Swaledale, Yorkshire.
- YOUNG—RENFREW.—On February 23, at Glasgow, William Stewart Young, Esq., of Hong-kong, to Mary Simpson, daughter of Robert Renfrew, M.D.

DEATHS.

- COUCHMAN, ROBERT, M.R.C.S., L.S.A. (formerly of Bedford), at Worthing, on February 21, aged 63.
- CROFT, ROBERT CHARLES, L.R.C.P., of Camden-road, on February 26, aged 55.
- CUMMING, STUART McDONALD, M.R.C.S., at Temuka, New Zealand, on December 13, 1881.
- GOODWIN, ROBERT DOCKSEY, F.R.C.S., at Monument House, Ashbourne, Derbyshire, on February 24.
- GREENHILL, LOUISA, wife of Surgeon-Major J. R. Greenhill, F.R.C.S., Army Medical Department, at 2, Cotehele-terrace, Stoke, Devonport, on February 24.
- JONES, EMMA, wife of James Thoresby Jones, L.R.C.P., M.R.C.S., at 2, Swan-hill, Shrewsbury, on February 22, aged 25.
- YEATES, GEORGE, M.D., at Walthamstow, Essex, on February 23.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

- CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S-INN-ROAD, W.C.—Assistant-Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and produce certificates of having attended the practice of some ophthalmic institution for at least six months. Testimonials to be addressed to the Secretary on or before March 4.
- CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Candidates must be registered to practise in medicine and surgery, and acquainted with the Welsh language. Applications, with testimonials, to be sent to the Secretary on or before March 7.
- ESSEX AND COLCHESTER GENERAL HOSPITAL.—Physician. Candidates must be graduates in medicine of one of the Universities recognised by the Medical Council of the United Kingdom, or Fellows or Members of the Royal College of Physicians of London; or Fellows or Licentiates of the King and Queen's College of Physicians in Ireland; or Fellows of the Royal College of Physicians, Edinburgh; but no candidate shall be eligible who practises, or is connected in partnership with anyone who practises, surgery, pharmacy, or midwifery. Applicants' names, with diplomas and testimonials, to be sent to the Secretary on or before March 29.
- ESSEX AND COLCHESTER GENERAL HOSPITAL.—Vacancy in the Surgical Staff. Candidates' names, with qualifications and testimonials, to be sent to the Secretary on or before March 29.
- EPSOM UNION.—Medical Practitioner. (For particulars see Advertisement.)
- GENERAL INFIRMARY, NORTHAMPTON.—Assistant House-Surgeon. (For particulars see Advertisement.)

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. (For particulars see Advertisement.)

LONDON HOSPITAL MEDICAL COLLEGE, TURNER-STREET, MILE-END, E.—Assistant Demonstrator of Anatomy. (For particulars see Advertisement.)

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD.—House-Physician. Candidates must be registered under the Medical Act, and must not engage in private practice. All particulars may be had of the Secretary, to whom applications and testimonials should be sent by March 9.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

St. Saviour's Union.—Mr. T. M. Donahoo has resigned the Fifth District: salary £130 per annum.

APPOINTMENTS.

Easington Union.—Motherwell Duggan, M.R.C.S. Eng., L.R.C.P. Edin., to the Wingate District.

Hunslet Union.—John Glaister, B.M. and M.C. Aber., to the Rothwell District.

Middlesborough Union.—William Knott, M.B. and M.C. Edin., to the Fifth District.

Stoke Damerel Parish.—Frederick E. Row, M.R.C.S. Eng., L.R.C.P. Edin., to the Clowance and St. John's District.

Wantage Union.—Mark D. Stark, M.R.C.S. Eng., L.R.C.P. Edin., to the Hendred District.

Wheatenhurst Union.—George T. B. Watters, M.B., C.M. Edin., L.R.C.S. Edin., L.S.A., to the Haresfield District.

UNIVERSITY OF CAMBRIDGE.—At a Congregation held on the 23rd inst., the following degrees were conferred:—M.B.: F. J. Cannon, Trinity; James Oswald Lane, St. John's.

THE SANITARY ASSURANCE ASSOCIATION.—The first annual meeting of the members of this Association was held at the offices, 5, Argyll-place, Regent-street, on Wednesday, February 22. In the unavoidable absence of the President, Sir Joseph Fayrer, Professor Hayter Lewis presided. The Secretary, Mr. Joseph Hadley, read the annual report, from which it appeared that the Association (which was the first incorporated institution for the purpose of sanitary assurance) commenced the inspection of houses, supervision of sanitary work, and issue of plans and certificates as to the sanitary condition of houses, in April last year, and that the houses inspected have varied in rateable value from £36 to £750. The expenditure of the year had been £365, including outstanding liabilities, and the balance in hand at the close of 1881 was £2 6s. 11d. Professor Hayter Lewis, in proposing the adoption of the report and balance-sheet, referred to the great public importance of the work the Association had initiated in the metropolis. Other associations had been previously formed in the provinces, and recently one or two similar organisations had been set on foot in London, and it was to be hoped that the community generally would take advantage of the opportunities thus afforded them of obtaining skilled advice as to the sanitary conditions under which they live. Mr. H. Rutherford, Professor de Chaumont, F.R.S., and Mr. F. Roger Smith, Professor of Architecture, testified to the usefulness of the Association and the thoroughness of the work done by it, and spoke encouragingly of its future. The report and balance-sheet were then adopted; the retiring members of the Council, Professors Hayter Lewis and Roger Smith, were re-elected; Mr. R. G. M. Creasey was appointed auditor; and the meeting concluded with the usual vote of thanks to the chairman.

A NEW OPERATION FOR EXSECTION OF THE INFERIOR MAXILLARY NERVE IN THE SPHENO-MAXILLARY FOSSA.—Under this heading the *Philadelphia Med. Times* (December 17) thus describes an operation performed by Prof. Garetson, which is said to have made a marked impression upon the large numbers who witnessed it:—"After making the required trapway by dissecting the masseter from its attachment to the ramus, a cylindrical drill half an inch in length and the same in diameter was inserted into the mandril of a powerful surgical engine; and by it, in revolutions to the extent of 5000 times in a minute, the nerve was quickly laid bare to its place of entrance at the posterior dental foramen. Next, the opening being enlarged until the pterygoid muscle was fairly exposed to view, the nerve was cut at the site of its inferior exposure, and, being lifted from its bed and held on the stretch, the handle of a scalpel was made to isolate it up to the point of emergence at the base of the skull. It was there excised, a pair of delicate iris-scissors being used."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 25, 1882.

BIRTHS.

Births of Boys, 1449; Girls, 1363; Total, 2812.
Corrected weekly average in the 10 years 1872-81, 2695.0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	961	980	1941
Weekly average of the ten years 1872-81, } corrected to increased population ...	917.9	884.6	1802.5
Deaths of people aged 80 and upwards ...	...	...	70

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West	668993	...	4	2	2	19	...	2	...	3
North	905677	2	7	7	3	25	...	8	...	3
Central	281793	...	3	4	2	6	...	1	...	...
East	692530	1	2	3	2	61	...	1	...	3
South	1265578	5	19	13	4	64	1	15	...	5
Total	3814571	8	35	34	13	185	1	27	...	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	30.233 in.
Mean temperature ... ..	...	...	...	...	...	44.3°
Highest point of thermometer ... ..	...	...	...	...	...	54.9°
Lowest point of thermometer ... ..	...	...	...	...	...	32.4°
Mean dew-point temperature ... ..	...	...	...	...	...	39.9°
General direction of wind ... ..	...	...	...	...	...	Variable.
Whole amount of rain in the week ... ..	...	...	...	...	...	0.05 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Feb. 25, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Feb. 25.	Deaths Registered during the week ending Feb. 25.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London	3891078	2812	1941	26.0	54.9	32.4	44.3	6.84	0.05	0.13
Brighton	109595	65	85	40.5	52.0	35.0	44.5	6.95	0.30	0.76
Portsmouth	129916	97	59	23.7	...	...	...	...	...	...
Norwich	83821	53	47	27.6	...	...	...	...	...	...
Lymouth	74449	43	38	26.6	...	...	...	...	...	...
Bristol	210134	136	94	23.3	54.0	35.0	42.9	6.06	0.11	0.28
Wolverhampton	76756	47	31	21.1	...	...	...	...	...	...
Birmingham	408532	314	178	22.7	...	...	...	...	...	...
Leicester	126275	83	46	19.0	53.8	34.0	43.2	6.22	0.16	0.41
Nottingham	193573	137	88	23.7	54.3	33.0	43.2	6.22	0.07	0.18
Derby	83587	68	48	30.0	...	...	...	...	...	...
Gloucester	86592	48	29	17.5	...	...	...	...	...	...
Liverpool	560377	413	270	25.1	...	...	...	...	...	...
Colton	106767	87	74	36.2	53.0	35.5	42.5	5.84	0.47	1.19
Lancaster	340211	260	174	26.7	...	...	...	...	...	...
Alford	184004	159	86	24.4	...	...	...	...	...	...
Oldham	115572	76	55	24.8	...	...	...	...	...	...
Blackburn	106460	62	63	30.9	...	...	...	...	...	...
Preston	97656	82	58	31.0	...	...	...	...	...	...
Luddersfield	83418	49	28	17.5	...	...	...	...	...	...
Halifax	74713	41	25	17.5	...	...	...	...	...	...
Bradford	188101	109	99	27.5	53.2	36.2	44.4	6.89	0.30	0.76
Leeds	315998	248	135	22.3	52.0	36.0	44.2	6.78	0.10	0.25
Sheffield	290516	184	139	25.0	54.0	37.5	44.1	6.73	0.17	0.43
Hull	158814	99	80	26.3	54.0	34.0	43.0	6.11	0.10	0.25
Newcastle	119065	103	81	22.3	57.0	36.0	47.5	8.61	0.05	0.13
South Shields	147626	96	70	24.7	...	...	...	...	...	...
Cardiff	86724	85	27	16.2	...	...	...	...	...	...
For 28 towns	8455320	6056	4118	25.4	57.0	32.4	44.0	6.67	0.17	0.43
Glasgow	232440	130	97	21.8	57.1	37.6	46.8	8.23	0.03	0.08
Edinburgh	514048	389	244	24.8	...	...	...	...	...	...
Dublin	348293	230	224	23.6	57.7	33.5	46.0	7.78	0.27	0.69

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30.23 in. The highest reading was 30.65 in. on Monday morning, and the lowest 29.30 in. at the end of the week.

APPOINTMENTS FOR THE WEEK.

March 4. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Mr. W. Watkiss Lloyd, "The Iliad and Odyssey."

6. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Edentata." Lecture IV.

ROYAL INSTITUTION, 5 p.m. General Monthly Meeting.

ODONTOLOGICAL SOCIETY, 8 p.m. Mr. Walter H. Coffin will read a paper. Casual Communications by Messrs. S. J. Hutchinson, Marcus Davis, etc.

MEDICAL SOCIETY OF LONDON (General Meeting; Ballot for Officers and Council, 8 p.m.), 8½ p.m. Dr. Hughlings-Jackson, "On a Case of Cortical Tumour of the Brain, with Convulsive Seizures beginning in the Right Foot." Dr. Sansom, "On a Case of Hodgkin's Disease, with Suppuration of some of the Glands of the Neck."

7. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Professor John G. McKendrick, "On the Mechanism of the Senses."

ANTHROPOLOGICAL INSTITUTE, 8 p.m. Ordinary Meeting.

PATHOLOGICAL SOCIETY, 8½ p.m. Specimens: Mr. Hutchinson—(1) Anomalous Nerve Disorder in Infancy; (2) Multiple Osteo-Chondromata (living specimens). Mr. A. Barker—(1) Congenital Dislocation of Hip; (2) Spinal Caries in Early Stage; (3) Fracture of Condyle of Femur (card). Mr. Davies-Colley—(1) Radically-cured Inguinal Hernia; (2) Congenital Hypertrophy of Toes (card). Mr. Eve (for Mr. Edwards)—Sarcoma of Epididymis. Mr. Dent—(1) Double Displacement of Tibia (living specimen); (2) Sequestrum in Head of Femur. Dr. Warren—Intestinal Obstruction in a Marmoset. Dr. Burnet—Carcinomatous Stricture of Oesophagus (card). Dr. T. Robinson—Case of Alopecia. Dr. Thin—Three Cases of Alopecia Areata in one Family. Dr. Duckworth and Dr. V. Harris—Microscopical Preparations of Alopecia Areata.

8. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. C. Theodore Williams.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Edentata." Lecture V.

ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Mr. William Ewart, "On Pulmonary Cavities: their Origin, Growth, and Repair." (Second Gullstonian Lecture.)

HUNTERIAN SOCIETY (London Institution) (Council Meeting, 7½ p.m.), 8 p.m. Dr. Bedford Fenwick, "On Venesection in Cardiac Disease."

9. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ROYAL INSTITUTION, 3 p.m. Dr. P. L. Selater, "On the Geographical Distribution of Animals."

OPHTHALMOLOGICAL SOCIETY, 8½ p.m. Dr. Walter Edmunds, "On a Case of Suppurative Ophthalmitis after Ligature of Common Carotid." Mr. Lawford, "On an Unusual Case of Gunshot Injury of the Eye." Mr. Waren Tay, (1) "On a Case of Optic Neuritis after Concussion of the Brain;" (2) "On a Case showing Condition Three Years after Optic Neuritis from Injury to the Head." Dr. Sydney Coupland, "On a Case of Optic Neuritis following Contusion of the Brain." Mr. McHardy, "On a Case of Extensive Retinitis following Injury to the Head." Mr. Fitzgerald (Dublin), "On a Case of Defective Vision in a Seaman." Dr. Brailey, (1) "On a Case of Retinal Detachment simulating Sarcoma of Choroid" (microscopical specimens); (2) (for Mr. Mason, of Bath). Microscopical Specimens from a Case of Corneo-Scleral Tumour. Mr. Snell (Sheffield), "On a Case of Sympathetic Ophthalmitis setting in after Excision." Living Specimen (8 p.m.): Mr. Nettleship—Case of Atrophy of Optic Disc after Orbital Erysipelas.

10. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Edentata." Lecture VI.

[For continuation see next page.]

ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Mr. William Ewart, "On Pulmonary Cavities: their Origin, Growth, and Repair." (Third Gulstonian Lecture.)

CLINICAL SOCIETY OF LONDON, 8½ p.m. Mr. G. Lawson, "On a Case of Chimney Sweep's Cancer of the Axilla, treated by Excision of the Growth, Ligation of the Axillary Artery, and Amputation at the Shoulder-Joint." Mr. H. Marsh, "On a Case of Aneurism of Axillary Artery: Ligation of Subclavian; Rupture of Sac; Amputation at Shoulder-Joint; Recovery" (patient to be shown). Dr. Mahomed, "On a Case of Myxœdema improving under Treatment" (patient to be shown). Mr. Warrington Haward, "On a Case of Removal of the Hypertrophied Spleen." The following living specimens will be exhibited: Mr. C. H. Golding Bird—A Case of Radical Cure of Congenital Hernia in the Adult. Mr. Pearce Gould—A Case of Cured Spina Bifida. Dr. B. O'Connor—Two Cases of Universal Ichthyosis in Adult Females.

ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Mr. J. W. Swan, "On Electric Lighting."

NOTES, QUERIES, AND REPLIES:

He that questioneth much shall learn much.—Bacon.

The Middlesex Coroners.—The accounts of the respective coroners, from January 1 to February 11 last, were as follows:—Sir John Humphreys, for 267 inquisitions, £431 19s. 3d.; Dr. Danford Thomas, for 231 inquisitions, £431 7s. 3d.; Dr. Diplock, for 82 inquisitions, £180 12s. 6d.; Mr. C. St. Clair Bedford, for 30 inquisitions, £65 10s.

Small-Pox Marks.—The latest American patent is one for obliterating these marks.

Dressed Meat "Dressed Market Fashion."—The stipendiary magistrate at Hull has sent a butcher to prison for three months for having "dressed market fashion," cut up, and mixed with other meat, the carcass of a beast which, before it was slaughtered, had been suffering from foot-and-mouth disease for a considerable time. The farmer from whom the animal had been received was at the same time fined £15 and costs.

Lady Doctors.—In an interesting collection of autographs sold by Messrs. Sotheby on Tuesday last was a curious one from the celebrated Mrs. Piozzi, formerly Mrs. Thrale, in which, writing from Weston-super-Mare, she says:—"Mrs. Piozzi sends her compliments to Mr. Price, by her cookmaid, who wishes—wisely enough—to consult a professor, though twelve grains of rhubarb and twelve drops of laudanum in some weak brandy-and-water would have cured her probably; and Mrs. Piozzi never extends her practice beyond innocent remedies: begs Mr. Price will set her up as quickly as he can, and drive out of her head the notion of this place disagreeing with her."

Psychologist.—The skull of Bellingham, who shot the Right Hon. Spencer Perceval in the House of Commons, can be seen in the collection of crania in the museum of St. Bartholomew's Hospital; those of Eugene Aram, Jonathan Wilde, and John Thurtell, in the museum of the Royal College of Surgeons.

The New Local Government Bill.—It is stated that this Bill contains a scheme of trade licences, which includes a tax on butchers, bakers, and publicans.

The Old Proverb.—A gentleman, who took to medicine late in life, said to a friend, "You know the old proverb: 'At forty a man must be a fool or a physician!'" "Yes," was the reply; "but, doctor, don't you think he can be both?"

Gilbert, Southampton.—"Quarantine" is derived from the period of forty days, which was the ancient quarantine. It probably, as Hecker remarks, had a medical origin, "for the fortieth day, according to the most ancient notions, has always been regarded as the last of ardent diseases, and the limit of separation between these, and those which are chronic."

Homœopathy.—

"It is (the dose) so great because it is so small;
Then 't would be greater were it none at all."

Urban and Rural Sanitary Works.—The Town Council of Stratford-on-Avon have before them plans for the drainage of the town.—A system of main sewerage has just been provided for the town of Kenilworth.—A Local Government Board inquiry has been held at Mevagissey, Cornwall, with reference to an application for sanction to borrow £1150 to provide a supply of water for Mevagissey.—Public baths, erected at a cost of £4500, have been opened at Bellahouston, near Glasgow.—The large new wing of the Sunderland Infirmary, which will provide accommodation for forty-six additional patients, is approaching completion, and will be ready for occupation during the coming spring. It will be named the "Backhouse Memorial Wing," in compliment to the late Mr. Edwin Backhouse, a benefactor to the institution.—Plans have been approved by the Middlesex magistrates for the extension of the male infirmaries at Colney Hatch Lunatic Asylum, and also plans for a separate building to accommodate 312 patients, to be erected on land adjoining the Asylum.

A Nonconformist.—Yes; the Rev. Dr. Theophilus Lobb, M.D., F.R.S., was one of the pastors at the Dissenting Meeting-house adjoining Haberdashers' Hall. He enjoyed a large practice.

Infringing By-laws.—At the Barnet Petty Sessions, a builder at New Southgate has been fined 10s. for having permitted some new houses at Friern Barnet to be occupied without first giving notice to the Barnet Rural Sanitary Authority. The drainage had not been completed before the houses were occupied. The fine is absurdly small.

Swiss Intemperance.—A petition to the Geneva Local Legislature is being signed in Geneva for such an addition in the licence tax for cafés, restaurants, and wine-shops as will check the consumption of drink in that neighbourhood, which is probably as great as in other parts of Switzerland, if not greater. There are 1600 houses in the canton where drink is sold openly. This is equal to one house for every sixty-five inhabitants. The average expenditure per head of population is 300 fr.—£12. The Genevans, therefore, spend more in wine than in bread. It is stated there is little probability of the petition being of any avail, the public-house interest is so powerful.

Efficient Management.—A report just presented to the Birmingham Town Council from the Water Committee shows that after reducing the water rates by £4939 the surplus profit of the past year amounted to £7362.

Sussex County Hospital.—The recent "inhabitants' ball" at Brighton yielded a profit of £50 for this institution.

Tea and Coffee at Railway-Stations.—The present prices of these refreshments at railway-stations is a hardship upon the working-man traveller who prefers them to intoxicating drinks. The price of a glass of beer is twopence, but for a cup of tea or coffee it is threepence and sometimes fourpence. The coffee public-house companies find they can make a good profit by selling a pint of tea, coffee, or cocoa for a penny. Surely the railway companies might make arrangements for supplying the same for the price of a glass of beer. It is a question to which the attention of the directors might usefully be called.

Mat F., Edgware-road.—The London Sanitary Protection Association numbers 192 members, of whom twenty-two are medical men.

Delta.—The Etruscans were eminent in medicine and sanitation. The health and cleanliness of the towns in Etruria were secured by a system of sewerage, vestiges of which may be seen on many Etruscan sites, and they were skilled in controlling injurious processes of nature. They drained lakes, and reclaimed low and marshy ground, just as the Val di Chiana has been rescued in our own times; and these works are not only still extant, but some are even efficient as ever, after the lapse of so many centuries.

M. N. M., Brompton.—If we may estimate the result by the acknowledgments which usually follow the appeals published in the newspapers, such appeals rarely go altogether unrewarded. They are effective certainly with people whose benevolence seems always ready to flow under the influence of this particular stimulant.

COMMUNICATIONS have been received from—
Mr. J. DIXON, Dorking; THE REGISTRAR OF THE ROYAL COLLEGE OF PHYSICIANS, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE EDITOR OF THE "BRITISH MEDICAL JOURNAL," London; THE COMMITTEE OF THE PORTER MEMORIAL FUND, London; MR. JOSEPH WILLIAMS, Brentford; DR. ROBERTS, London; DR. WOLFE, Glasgow; DR. ROSS, Manchester; MR. J. CHATTO, London; THE HONORARY SECRETARY OF THE MEDICAL SOCIETY OF LONDON; MR. B. SQUIRE, London; MESSRS. BAILEY-DENTON AND CO., London; MR. GUYOT, Paris; DR. RIDLEY DALE, Sunderland; THE SECRETARY OF THE OPHTHALMOLOGICAL SOCIETY, London; DR. MACCORMAC, Belfast; DR. BRYAN WALLER, Edinburgh; THE SECRETARY OF THE MIDLAND MEDICAL SOCIETY, Birmingham; THE SECRETARY OF THE ODONTOLOGICAL SOCIETY, London; MR. T. HOLMES, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; DR. JAMES, Edinburgh; THE SECRETARY OF THE HUNTERIAN SOCIETY, London; DR. MOORE, Dublin; THE SECRETARY OF THE CLINICAL SOCIETY, London; REV. H. W. TOMES, Barnstaple; DR. A. HARRIS-BICKFORD, Camborne; DR. B. FOSTER, Birmingham; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London.

BOOKS, ETC., RECEIVED—
Transactions of the American Ophthalmological Society—Report of the Metropolitan Fever and Small-pox Hospitals at Homerton for 1880—Contributions to Orthopædic Surgery, by Charles F. Stillman, M.D. New York—The Gas Question, by James Adams, M.D., etc.—On the Endemic Hæmaturia of Hot Climates, by F. H. H. Guillemard, M.A. M.D.—Annual Report of the Hereford County and City Lunatic Asylum for 1881—A Study of the Tumours of the Bladder, by Alexandre W. Stein, M.D.—Trance and Muscle Reading, by G. M. Beard, M.D.—Report of the Netherfield Institution for Infectious Diseases—Natal in its Relation to South Africa, by James R. Saunders, M.L.C., Natal—Handbook of House Sanitation, by Eardley Bailey-Denton, C.E.—The Science and Art of Midwifery, by W. T. Lusk, A.M., M.D.—Report of the Newcastle-upon-Tyne Borough Lunatic Asylum.

PERIODICALS AND NEWSPAPERS RECEIVED—
Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health, Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students Journal and Hospital Gazette—Centralblatt für Gynäkologie—Detroit Lancet—Philadelphia Medical Times—União Médica—Medical News—Revue d'Hygiène—Indian Medical Gazette—Minnesota Medical Mirror—Leisure Hour—Friendly Greetings—Sunday at Home—Ophthalmic Review—Girl's Own Paper—Boy's Own Paper—Veterinarian—National Anti-Compulsory Vaccination Reporter—Monthly Homœopathic Review

ORIGINAL LECTURES.

CLINICAL LECTURES

ON DISEASES OF THE ABDOMEN.

FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P.,
Professor of Materia Medica and Therapeutics at University College;
Physician to University Hospital, and Professor of Clinical Medicine;
Physician to the Brompton Consumption Hospital, etc.

LECTURE X.

ON THE PHYSICAL EXAMINATION OF THE ABDOMEN—*Continued.*

you have mastered what I told you in my last lecture, and you take the trouble to gain the requisite skill by practice, venture to say you will be well prepared for carrying out the physical examination of the great majority of abdominal cases; and you will be in a position to realise intelligently the signs which I shall hereafter have to describe to you as characteristic of particular physical conditions. You must not ignore the fact, however, that there are cases which are usually more or less difficult and obscure, or which may become so from the neglect of certain simple precautions. I therefore desire now to draw your particular attention to the points you should remember in dealing with such cases, which I propose to discuss under our second heading:—

I.—SPECIAL MODES OF, AND AIDS TO, EXAMINATION.

I have said that cases may become difficult and obscure from the neglect of certain simple precautions in examination, and it is a fact that very serious and needless mistakes have been recorded from this cause. You will probably be prevented from making such mistakes, and will be helped in the diagnosis of many cases which are usually difficult, if you attend to the following particulars.

You should always make it a rule to *examine for yourself* things which are discharged from the abdominal cavity, in every case which is not clear and obvious. This will also give you useful information even in other instances, where you are aware of the nature of the disease, but are desirous of ascertaining certain details, which may be of practical significance, especially with reference to treatment. I allude more especially to *vomited matters*; the *stools* and *urine*; and the *urine*. The examination of these materials is, further, often of service where nothing can be ascertained by investigation through the abdominal walls. As regards the urine, you are probably aware that abnormal characters of this fluid may be the only signs of serious disease of the urinary organs, while it frequently gives valuable information as to diseases and conditions other than abdominal. Consequently, it is very properly a rule with every practitioner to examine the urine if they see the slightest reason for doing so—a rule which I would commend to your adoption. Vomited matters and stools are not so commonly attended to, but they should not be forgotten. The character and minuteness of the examination must depend on circumstances, and this will be further considered when dealing with the special organs: in the meantime, it will suffice to state that these discharges may only need to be inspected more or less carefully; or they may require more or less elaborate examination, physical, chemical, or microscopic.

I would next impress upon you the importance of attending to the *alimentary canal*. You will readily understand that the more empty this canal is, the more easy does the examination of the abdomen and its contents become. Therefore, if this examination is unsatisfactory, and gives indefinite results, it is desirable to take measures to bring it into a condition of emptiness of the stomach and intestines, so that the investigation may thus be more efficiently carried out.

But, beyond this, it is found that accumulations in the alimentary canal constitute a class of conditions very liable to be mistaken for others of a more serious character; and there are many instances on record, and some come within my own knowledge, in which grave mistakes of this nature have been made even by the most eminent and most careful physicians. And still further,

such accumulations may co-exist with other diseases, either affecting the alimentary canal itself or outside it, and may thus obscure them, or cause them to be overlooked. On all these grounds, therefore, you will see the great importance of always bearing the digestive apparatus in mind, and emptying it when occasion requires. The stomach may be thus emptied simply by withholding food; but the bowels have usually to be cleared out by the aid of purgatives or enemata, or a combination of both. And remember that this evacuation may require a considerable time for its completion. There are not a few cases in which the *fæces* has accumulated for such a length of time, that it is not only present in large quantity, but has also become solid and firm, so that it may be very difficult to break it up and to clear out the bowel. This subject will demand more detailed consideration when we come to treat of intestinal accumulations; sufficient has been said for our present purpose.

3. It is also necessary to remind you that you should take care to ascertain that the *urinary bladder* is properly evacuated, and that no such collection of urine is present in this viscus as to cause simulation of other morbid conditions. This may seem to you a needless caution, but cases are on record in which the urine has accumulated to such an extent as to cause great enlargement of the abdomen, which has actually been attributed to grave diseases. And remember that this may happen even when urine is passed in a certain quantity, especially in old people. I am acquainted with one case in which a specialist was sent for to decide whether an operation ought to be performed for a supposed ovarian tumour; he passed a catheter into the bladder, and an enormous quantity of urine was withdrawn, which caused the supposed tumour to subside entirely. The use of the catheter is what you have to bear in mind, and to resort to, if you have any reason to suspect a collection of urine in the bladder, which the patient cannot expel. But in any case, before making an examination of the abdomen, it is well, when circumstances permit, and especially if there is any difficulty or obscurity, to make the patient pass water, and thus empty the bladder.

4. In certain cases valuable information as to abnormal physical conditions in the abdomen is obtained by digital examination through orifices and passages, namely, the *anus* and *rectum*, or the *vagina* in females. I do not mean that this is merely useful for the investigation of diseases of these parts themselves, but it may be resorted to in difficult cases of a particular class, to ascertain what can be felt through the walls of these passages. For instance, by investigating in this manner through the rectum, assistance may be derived in distinguishing between ascites and ovarian tumour; and you can thus also examine the prostate and the base and neck of the bladder. With regard to this tube, it has been proposed even to pass the whole hand in, and thus explore the abdominal cavity. Examination through the walls of the rectum or vagina also helps in making out tumours lying deep in the pelvis, which cannot be otherwise properly reached and explored.

5. The use of *chloroform* or other *anæsthetic* must not be forgotten as an aid to examination of the abdomen under certain circumstances, especially in females. In the first place, the examination may be thus rendered much easier, and more satisfactory and complete, by making patients unconscious who object to the process, and so relieving their minds, and also by relaxing the abdominal muscles if these tend to be rigid. Under the influence of anæsthetics also the passages are relaxed, and can thus be more readily explored. One particular kind of enlargement of the abdomen, the so-called “phantom tumour,” is at once recognised by placing the patient under chloroform, when it immediately subsides.

6. In some instances it is not only permissible, but may become imperative to have recourse to *operative procedures*, for the purpose of forming an accurate diagnosis of morbid conditions within the abdomen. The use of an exploring needle, the *aspirateur*, or a small trocar, is not uncommonly indicated, and with ordinary care this involves little or no risk. The diagnostic purposes for which one or other of these instruments is employed in connexion with the abdomen are chiefly these:—*a.* To ascertain whether fluid is present or not, as, for example, in doubtful cases of abscess or hydatid of the liver. *b.* To determine the nature of a fluid known to be present, by withdrawing some of it for examination, and thus being able to ascertain the nature of

the disease. The obvious characters of the fluid removed may at once reveal this, such as pus; but it may need more particular general, chemical, and microscopic investigation. In this way we may be able to diagnose between doubtful cases of ascites, abscess, hydatids, ovarian cysts, hydronephrosis, and other conditions. c. To enable us to make a fuller and deeper examination of the abdominal structures, after removal of fluid which has obscured such examination. Thus, in cases of ascites it is often impossible to tell the conditions upon which this depends, but after the dropsical effusion has been withdrawn, its cause may be at once obvious. I have recently seen a case in which a very obscure ovarian tumour was easily made out after ascitic fluid had been removed.

Within recent times more formidable and serious operations have been performed for the diagnosis of obscure abdominal diseases, namely, to make more or less extensive exploratory incisions, and even to explore the abdominal cavity with the hand introduced through such an incision, under due precautions. Such procedures are perfectly justifiable under certain circumstances, and have proved in some instances of signal service. They may be called for, for instance, in the diagnosis of the cause of an intestinal obstruction; of supposed lodgment of calculi in the renal pelvis; and of doubtful tumours, ovarian or other.

7. I may just mention that the use of powerful light has been attempted in the diagnosis of obscure abdominal diseases; but at present I do not think that this method of examination can be said to be of any real practical value, whatever it may become in the future.

III.—SPECIAL EXAMINATION OF ORGANS.

In dealing with this part of the subject, I merely intend to refer very briefly to any points relating to the usual modes of examination which call for particular notice in connexion with certain individual abdominal organs; and to indicate special methods applicable to some of them. Here the surgeon comes to our aid; and, indeed, on many of the points I shall have to mention, you must obtain detailed information from your surgical teachers, who will also instruct you as to the best modes of acquiring the necessary skill. Moreover, there is one set of organs, the special examination of which is extremely important, but which I shall not attempt to discuss, as it is in itself a separate study, and you have opportunities of receiving the requisite special instruction at this hospital, if you choose to avail yourselves of them. I need scarcely say that I allude to the female generative organs. You must always be prepared for conditions connected with these organs coming under your notice in the ordinary examination of the abdomen—such as ovarian or uterine tumours, pregnancy, etc. But then you would naturally proceed to their special investigation; while there are many affections which are not thus revealed externally, and which are only recognised by examination particularly directed to the generative apparatus.

The following are the organs to which I think it necessary to refer separately, with regard to their physical examination:—

- A. The Stomach and Intestines.
- B. The Liver and Gall-bladder.
- C. The Pancreas.
- D. The Spleen.
- E. The Kidneys and Bladder.
- F. The Absorbent Glands.

(To be continued.)

THE GERMAN PROFESSORS AND PRIVAT-DOCENTEN.—According to a statistical account given in the *Deutsche Med. Woch.*, February 4, the proportion of the Privat-Dozenten is far in excess of that of the Professors, and even of the Extraordinary Professors—that is to say, if the object of the Privat-Docent is to enter on a career that will end by making him a Professor. This is the case with all the faculties, but in the medical faculty the proportion is far greater than in the others. In the medical faculties of the Prussian Universities there are 88 Professors, 83 Extraordinary Professors (38 of the number unsalaried), and 103 Privat-Dozenten. In the medical faculties of the other German Universities there are 109 Professors, 54 Extraordinary Professors, and 84 Privat-Dozenten.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

By DR. McCALL ANDERSON,

Professor of Clinical Medicine in the University of Glasgow;
Physician to the Western Infirmary, and to the Special Wards for Diseases of the Skin.

LECTURE V.—Concluded.

IV.—FUNCTIONAL AFFECTIONS OF THE SUDORIPAROUS GLANDS.

3. Altered Sudiparous Secretion.

(a) *Bromidrosis* (Osmidrosis).—One form of this has already been described, but other parts may be affected in a somewhat similar way, such as the axillæ and genital organs; and in these situations it must be admitted that often, at least, the offensive odour may result simply from the decomposition of the sebaceous secretion mixed with emanations from the clothing: it is worst in summer, and is more pungent the less frequently the clothing is changed.

(b) *Chromidrosis*.—By this, which is a rare affection, is meant coloured perspiration. It is oftenest met with on the face, especially on the lower lids, particularly in unmarried women suffering from uterine disorder. It may be the result of fraud, or of staining of the secretion with colouring matter imparted to it from the clothing, or of abnormal colouring matter derived from the system. "The colouring matter," says Tilbury Fox, (a) "is probably *indican*, which is, as it normally exists, colourless, and occurs pathologically in human urine. The indican is believed to be secreted by the sweat glands in a colourless state, and to be acted upon by the air so as to be oxidised blue, or brown, or blackish, as the case may be." It is sometimes also due to the presence of copper or of iron in the system.

4. Retained Sudoriparous Secretion.

(a) *Sudamina* (Miliaria?).—This eruption consists of little elevations of the cuticle, about the size of pinheads, filled with a watery fluid (miliary vesicles), which consists of the secretion from the sudoriparous glands; it is usually clear and transparent, but may become opaque from admixture with epithelial cells, or even sometimes with pus corpuscles, and on pricking the vesicles the fluid readily escapes. These, which are generally in great numbers, never run together; they are most abundant on the trunk of the body, and are met with in those who have been perspiring freely as the result generally of some acute affection, such as rheumatic or enteric fever. They run an acute course, dry up in a day or two, and are followed by slight desquamation. This eruption was much more frequently met with in former times than at present, when we generally aim at keeping a fever patient cool and comfortable, and not oppressing him with bedclothes and keeping him bathed in perspiration. For it is due to the excessive secretion of sweat, some of which (probably as the result of obstruction at the orifices of the glands), instead of escaping through the ducts, accumulates beneath the epidermis, which it raises in the form of minute vesicles.

(b) *Dysidrosis* (Tilbury Fox).—The condition described by the late Dr. Tilbury Fox under this head is said to be oftenest met with in summer, in those who are suffering from great nervous debility, and who are generally thin, pale, anxious-looking, and depressed, and who perspire too freely.

The eruption is sometimes met with on the feet, but much more frequently on the hands, especially between the fingers, on their palmar surfaces, and on the palms. Minute vesicles accompanied by burning and itching, due to distension of the sweat ducts with altered sweat, make their appearance; these are at first isolated, deeply embedded, and with little tendency to burst. After a few days they come to resemble sago-grains, gradually become prominent, but not pointed, assume a faint yellow colour, and have a tendency at last to run together, and even to form bullæ; the hand then becomes stiff and painful. By degrees the fluid is absorbed, and the cuticle exfoliates, leaving a red and tender cutis exposed, and sometimes the cuticle, especially about the roots of the fingers on their palmar aspect, becomes soddened and like chamois leather. It is always accompanied by much itching and a good deal of burning, and it "may be compli-

(a) "Skin Diseases," third edition, page 482. Reesshaw, 1873.

cated by a rash, more or less general, over the body. In some cases it may be limited to the back of the hand and the forearms, or it may be in severe cases of the disease seen about the face, the neck, and on the trunk, the body, and the feet. This eruption is similar to that of lichen tropicus and miliaria; it is hyperæmia of the sweat follicles. It is very itchy." (b) The disease is usually of short duration, lasting, as a rule, from ten days to two or three weeks.

It may be mistaken for Eczema, into which, indeed, it sometimes passes, but the diagnosis may generally be made by bearing in mind that it is the hands which are usually attacked; that the vesicles, instead of being distended with serum, are filled with sweat; that there is no tendency to exudation on the surface of the skin (leeting); that there is no formation of pus; and that crusts are not observed.

ORIGINAL COMMUNICATIONS.

THE

ATTRIBUTES, PROFESSIONAL AND SOCIAL, OF THE SO-CALLED "FAMILY DOCTOR."

*Being the Annual Oration, delivered Wednesday, Feb. 8, 1882,
Before the Hunterian Society.*

By ROBERT FOWLER, M.D.

(Concluded from page 197.)

To descant on the continuous progress since 1815 made in, and on the present character of, the Apothecaries' Society's examination would savour too much of the favour of a partisan.

It is a matter of medical history that, in response to the demands of the Court of Examiners, not only did new schools spring up in the metropolis, but this Court was the first examining body to receive certificates from the teachers of the provincial schools.

The records of the Society tell us that since the passing of the Act of 1815 nearly 20,000 candidates have satisfied the Court of their competency to practise as general practitioners.

In 1834, Sir Henry Holland, then President of the College of Physicians; Mr. Guthrie, then President of the College of Surgeons; Sir Astley Cooper, Mr. R. G. Grainger, and Dr. Seymour were examined before a Select Committee of the House of Commons, and they all gave similar testimony to Sir David Barry, who asserted that "the examination established by the Company of Apothecaries was by far the most comprehensive examination in London."

The comprehensiveness of an examination in 1834 is not, I need scarcely say, any criterion whatever of the standard necessary at the present day.

Sections 20 and 21 in the Medical Act of 1858 confer great powers on the General Medical Council in respect of the qualifications granted by the examining bodies.

It must be admitted that the General Medical Council has, through its Visitors, detected one, and but one only, flaw in the completeness of the examination at the Society of Apothecaries. "The Visitors remark that the Society of Apothecaries is not carrying out the resolution of the Council that *surgery* should be one of the subjects in which every candidate should be examined before receiving a qualification entitling to registration." (a)

The Court of Examiners of the Society of Apothecaries are "authorised and required to examine all person and persons applying to them for the purpose of ascertaining the skill and abilities of such person or persons in the science and practice of medicine."

The word "medicine," both in its narrow and in its broad signification, has always been regarded by lexicographers as synonymous with the word "physic."

An Act of Parliament has given a legal comprehensiveness to the signification of the words "science of physic."

I have but little doubt that the words in the Apothecaries Act, "science and practice of medicine," would have been similarly interpreted in our courts of law.

(b) "Skin Diseases: their Description, Pathology, Diagnosis, and Treatment." By Tilbury Fox, M.D. Third edition, page 477. 1873. Henry Renshaw.

(a) Minutes of the Medical Council, vol. xii., 1875, page 101; and vol. v., page 238.

The dogged determination and bold spirit which dominated the handful of Surgeon-Apothecaries from 1812 to 1815 were sadly needed in 1858.

The Society of Apothecaries should then have cared for, and completed, the needed qualifications of the candidates. The Government and the public both would, ere now, have been guaranteed the thorough competency of the licentiates to practise in the threefold branches of the profession as general practitioners.

The one-portal system question would have been solved.

Failing, then, the desired combination of the College of Surgeons and of the Society of Apothecaries in the establishment of a conjoint examining board, there is still ready to the hand of any reforming Government an existing legal and adequate machinery upon which to graft the one-portal system of admission to the practical exercise of the calling of physic, as a whole, in England.

The elective power conferred by the Act of 1815 on the "master, wardens, and assistants" of the Society of Apothecaries to "choose and appoint the Court of Examiners" could, of course, be easily extended in any direction, and by such means as the wisdom of the Government and our Parliament should determine.

In advocating a scheme for utilising existing legal machinery, and making a complete examination by an enlarged Court of Examiners of the Society of Apothecaries the one-portal admission, guaranteeing to the public the capability of every practiser of physic, I am quite aware that something more is needed than to recall and rely upon the past good work of this Corporation.

The public and the Royal Commissioners will both alike require to be thoroughly satisfied as to the special fitness of such a body to fulfil present and future conditions.

Taking the numerical test alone, I do not find that confidence in the qualification supplied by the Society of Apothecaries has been materially diminished by the extraordinary resolution in 1860 of the Royal College of Physicians.

The by-laws founded on this resolution were approved of at the Censors' Board on December 22, 1860, and, according to the official list corrected to December, 31, 1880, it appears that 1388 of these new licences have been granted.

This total gives an annual average of sixty-seven during the last twenty years.

During the twenty years prior to the granting of these new licences by the Royal College of Physicians—namely, from August 1, 1840, to July 31, 1860—5927 candidates received the licence of the Society of Apothecaries, making an annual average of 296.

In the twenty years since the granting of these new licences by the Royal College of Physicians—namely, from August 1, 1860, till July 31, 1880—4954 candidates have received the licence of the Society of Apothecaries, making an annual average of 247.

The practical outcome, therefore, is that the competition of the Royal College of Physicians with the Society of Apothecaries has resulted in the diminution by one only of the average number of licentiates passed every week by this latter body during the last twenty years.

In affirming my belief, as I do, that etymologically, morally, and legally the Society of Apothecaries should so construe the words of their Act as to include "surgery" in their examination of "all person or persons in the science and practice of medicine," I would simply make one remark to meet any possible legal objections.

The Royal College of Surgeons of England is empowered by its several charters to examine only in surgery, in midwifery, and in dentistry. Despite, however, the absence of any such legal provisions, this Corporation has for some time examined candidates for its diploma (who have not a medical qualification) in that one of the threefold branches of our profession styled the "principles and practice of medicine." No candidate rejected at Lincoln's-inn on this one subject only has ever applied to the Court of Queen's Bench for a mandamus to compel the College to give him the diploma of membership, which is very properly withheld until the qualification is complete.

Even before 1874 the Society of Apothecaries, although restricted to select from their own guild (a restriction, by-the-bye, they have frequently endeavoured to remove), (b) had members upon their Court of Examiners who were Fellows

(b) An Address by the Society of Apothecaries to the General Practitioners, 1845, page 9.

by examination of the Royal College of Surgeons. By the Apothecaries Amendment Act of 1874 this restricted provision of the Act of 1815 was repealed.

The Society of Apothecaries have fully justified the confidence of the Legislature. The examination by this body had in the last sixty years greatly raised the scientific attainments of the medical students. (c) It had, moreover, compelled an increasingly higher standard of qualification for the family doctor. The public still perseveringly demand that they have a medical attendant as competent for the discharge of his manifold duties as the improved state of medical education can render him. The Society at once responds. It fearlessly and impartially uses its new legal power of electing on to its Court of Examiners any legally qualified member of the profession. Of the present Court of Examiners, one-half have nothing whatever to do with the corporate body, two of them not even being licentiates of the Society. Of the twelve members, eight of them are M.D.'s of the University of London, and two of these were gold medallists in more than one subject; one is an M.D. of the University of Cambridge; and two are M.D.'s of the University of Edinburgh. Four of the Examiners are either lecturers at medical schools or physicians to large hospitals. Three of the Examiners are Fellows, and two are Members, of the Royal College of Physicians of London. Two others are Fellows of the Royal College of Surgeons of England, of which body nine of the remaining Court are Members. About one-half of the whole Court may be appropriately styled Surgeon-Apothecaries—men admittedly best able to form an opinion of the amount of qualification necessary for general practice.

I may even remark that those very specialities in our practice, which so frequently come first under the particular notice of the general practitioner, and of which he is taught so little at the schools—I allude to diseases of the skin and to diseases of the mind—are ably represented on the present Court by well-known devotees to the study of those respective maladies.

That one great need of all present, and more especially of all future, practitioners, scarcely yet recognised or even mentioned at the schools,—the knowledge of sanitary medicine,—has also at least one of its foremost professors amongst the Court of Examiners.

A complete examination given by such a composite body of well and diversely qualified men, representative of all the needed knowledge for a family doctor, should surely satisfy the Government and the public that the holder of the licence was fully competent to practise in all and every the branches of the science and faculty of physic as a general practitioner.

Well will it indeed be for all who in time to come may need that aid which our profession alone can give, if the examining body constituted by the State, or the conjoint board of the future, be based on the broad principles which have always actuated the Society of Apothecaries! Dr. Billings has remarked: "To insure the value of a diploma as a proof of education is the difficulty."

An examining body admitting candidates through the one-portal system must be competent to guarantee the public that their medical adviser, on whose skill so large a proportion of them are solely dependent in every visitation of accident, childbirth, or disease, should be possessed of knowledge sufficient for the practical duties of his varied calling.

Conjoining boards must exercise a complete abnegation, or rather—to borrow a word from Capel-court—a "backwardation" of their corporate interests. They must resolutely oppose the innate desire to so compose the examining body that their several nominees be class representatives only of one special subject or particular branch of the art and science of physic.

Legalised by the powers that be, the family doctor needs still other attributes to fit him for his great calling.

The clear trumpet-call to duty, boldly depicting the high ideal of what should be the aim and conduct of us all, was uttered, at the opening of last year's great Congress, by one not only the recognised temporary leader of our profession, but by one sprung from the great class of family doctors, and now high in the confidence of his Queen.

Not every general practitioner, however, must expect to attain the position of chief medical adviser to the Crown of

this country; yet each of us is expected to be at all times intellectually, morally, and physically attuned for the high and important duties of our calling.

It is only by maintaining and elevating the standard of our professional and general acquirements that we can hope in this age to maintain and elevate our professional and social status.

Nevertheless, I again unhesitatingly appeal to all responsible for the education of our future family physicians.

Examining bodies, the practitioners of the day, and the public themselves, recognise the increasing failure in the preparedness of our students for the required qualifications of their future life.

It is indeed obvious to all thoughtful minds that a more clinical and practical training than our modern system obtains is the one great desideratum still of medical teaching.

As the application and capabilities of our art rise to the exacting requirements of mankind, in so much will medical men retain that unbounded trust with which the world, from time immemorial, has regarded the character of our profession.

The confidence which admits us to all the sanctities and tenderesses of domestic life not only presupposes in, but demands from, us an innate possession and a strict cultivation of every unswerving moral attribute.

There is one phase of our social conduct on which I would for a few moments dwell.

From the general practitioners in medicine, more than from any other class of the community, is required a great tolerance of and a larger leniency towards the foibles, the whims, and caprices of their fellow-men.

The practice of this needed restraint is demanded from the family doctor, alike in his daily intercourse with private patients, as well as in his contact, socially or officially, with the public at large, individually or collectively.

Ordinary human nature is, as a rule, forbearing towards the many petty susceptibilities of the sick-bed. It tries hard indeed all our better feelings to calmly receive unmerited ingratitude for labours such as ours. Yet this is what we must steel ourselves to do.

With true moral courage we must not only more firmly support each other in maintaining the dignity of our profession; but also we must determine, by increased efforts in the alleviation of suffering, to convince humanity of the nobility and unselfishness of our calling.

I would only but incidentally allude to two great and serious questions of the day, respecting which certain individuals, as well as collective assemblages of the public, would seem to be mentally incapable either of recognising crude facts, or of appreciating the natural deductions from acknowledged premisses.

It is deplorable, and indeed discreditable to the intellectuality of this country, that our foreign brethren, whilst enjoying our hospitality last year, should have felt the urgent necessity of raising, in reprimand, the voice of injured science against the enactments of our English Parliament.

The warning words of Virchow or of Pasteur will not, however, I fear, avail any more than has the dulcet eloquence of that veteran in science—our own honorary member—Richard Owen; or than has the unanimous verdict of last year's great International Congress, against this hasty and obstructive legislation of our country.

How can we indeed gauge the mental calibre of that batch of individuals, who, with a false sense of humanitarianism, regard with sentimental horror the insertion of a physiologist's taper needle through the ear of a rabbit, whilst they hesitate not to stand complacently by and applaud the intrusion of a jockey's rowelled spur into the flanks of a thoroughbred at Ascot or at Goodwood?

Lamentable indeed is it to witness even a great judicial mind, well conversant with the logic of facts, associating itself with this fallacy and fanaticism of the day. "Nemo mortalium omnibus horis sapit." Let us, however, with a manly tolerance hope of this great luminary in a sister profession, as was said of the "wedding guest" on the departure of the "Ancient Mariner"—

"He went like one that hath been stunned,
And is of sense forlorn:
A sadder and a wiser man,
He rose the morrow morn." (d)

(c) "The Touchstone of Medical Reform," by Joseph Henry Green, page 68.

(d) Coleridge, "Ancient Mariner," last verse.

For, as thought Sir Leoline of his old friend Lord Roland—

"To be wroth with one we love,
Doth work like madness in the brain."(e)

Our Government has shown inconsistency in the matter of vivisection. It recognises, and by printing as a Parliamentary paper virtually adopts, the wonderful results emanating from Professor Pasteur's experiments on living animals in France, whilst it legally prohibits Englishmen performing similar experiments in this country under the penalty of a criminal prosecution!

The outcry against vaccination and revaccination demands, perhaps more than do the anti-vivisectionists, tolerance and leniency from the general practitioners, whose decision and action in the former vexed question must necessarily be of daily imminence in many a family circle.

On the commonplace topic of bodily health, I would simply observe on the great advantages which must invariably accrue to our sex in the performance of the duties of general practitioners, by the possession of a superior physical organism.

Inferiority, in the conventional use of the term, I do not for one moment apply to our would-be fair rivals.

In a scientific sense not only are all females admittedly lower in the scale of development than males, but the woman is clearly not, as a rule, the equal of man in stature either of mind or of body. It is for obvious reasons absolutely absurd to imagine that medical women can take upon themselves duties required of family doctors, at any hour of every day or night.

The limited field of consultants must soon be closed to those few women intellectually capable of acquiring medical knowledge.

Let Pall-mall and Lincoln's-inn, however, console themselves with this one significant fact, pointed out by Delaunay, that "although there have been and are wonderful examples of the skill and dexterity of women as practical musicians, at the same time cultivating the sense of hearing and taste to a state of very high perfection, there has never yet been a great female composer."

Allied, of course, to the question of health is that of longevity.

The devotees of our arduous and danger-exposed profession may nevertheless be comforted on the authority of Dr. Guy, that medical men occupy a good position in the high average duration of life he assigns to the professional classes.(f)

A notable instance has, since our last anniversary, been prominently commented on.

A late distinguished member of our own Society, Dr. Archibald Billing, the father of the College of Physicians, died on September 2 last, at the patriarchal age of ninety years. Dr. Billing was admitted a member of this Society just sixty years ago, in 1822, when the Society was but in the fourth year of its institution. Dr. Benjamin Robinson, who had succeeded Sir William Blizard's three years of office, was then President, and he was re-elected the following year. In 1824-25 Dr. William Babington occupied the chair. Mr. Benjamin Travers succeeded him in 1826-27. In 1828 Dr. Billing was elected the fifth President of the Hunterian Society, retaining the chair, as was then the custom, for two years. In 1832 he delivered the Oration, a manuscript copy of which exists in our library, the subject being "An Essay on Auscultation of the Heart." Dr. Billing was one of the first in London to teach this then new mode of investigating cardiac disease. He afterwards frequently contributed to the pages of the medical journals papers on this subject. He was a well-known and original inquirer into the causes of the sounds of the heart.

At this time Dr. Billing was living in Bedford-place (No. 5). According to the records of our Society he appears to have moved westward about 1843. When I joined the Society, in 1854, I can well remember the old man occasionally attending our meetings, and taking part in our discussions. I will not say "that old man eloquent," for even his old pupils admit that he was not a fluent speaker.

He, the cultured, artistic, and from the very onset of his career not needy, physician, never looked down, however, upon the general practitioner.

He was the advocate of the "one-faculty system," and on one occasion publicly declared that "he despised the man

who was incapable of practising his profession from the administration of a glyster upwards."

I need not dwell, as others have, on Dr. Billings' more public and well-known career. This old link with the past excites indeed our wonder, when we consider that he was admitted a Fellow of the Royal College of Physicians of London in 1819, just seven years before was similarly honoured the acknowledged Nestor of our profession, Sir Thomas Watson.

Our chief interest connected with Dr. Archibald Billing is that he was one of those very few still left to us who could carry back his association to an acquaintance with or a knowledge of those grand men of old who founded this Society. Sir William Blizard died in 1835 at the age of ninety-two.

One other colleague of these two men at the same great hospital, and also a member of this Society, died about a month prior to Dr. Billing. Mr. James Luke, on the death of Sir William Blizard, became one of the principal surgeons of the London Hospital. He appears to have joined our Society in 1827, and to have followed Dr. William Cooke as President in 1843-44, being succeeded by the well-known Dr. Richard Bright. Mr. Luke during his presidency appears, from our report of 1844, to have discouraged the plan, adopted in later years, of filling up the evening, when the discussion on the formal paper or essay before the Society is completed, by any *impromptu* case or remarks from attendant members.

Mr. Luke does not appear to have ever taken the post of Orator of this Society, although he delivered the Hunterian Oration in 1852 before the Royal College of Surgeons of England, of which he was twice President. He was one of the few consultants who continued to reside in the City (in Broad-street or its immediate neighbourhood) until his retirement from practice, about 1866.

Dr. Archibald Billing was styled by the medical journals, in their usual obituary, the "father of the profession." He was really not so. About the time of his death, died, also at the great age of ninety, a well-known general practitioner. Mr. Richard Clewin Griffith was in practice before 1815, and hence was among the first batch of this section of the profession. He was admitted a Member of the Royal College of Surgeons in 1813, whereas Dr. Billing was not made a Doctor of Medicine of Oxford till 1818. Richard Clewin Griffith was, of course, the Father of the Society of Apothecaries, of which Company he was Master about twenty-seven years ago, when he retired from practice, having then realised a good competence. He belonged to the old school of practical medicine, and despised theories.

Nevertheless, it has been written of this nonogenarian surgeon-apothecary—"He was one of those old worthies who were a credit to our profession at a critical epoch of our history." Again our profession is passing through a very critical period of its history. Will the same epitaph be written of each and all of us—the family doctors of this day?

Armed physically, morally, intellectually, neither we nor our successors need fear, despite impending changes and so-called reforms, comparison with any section of our profession. In certain parts of the armour of the profession the general practitioner should, indeed, by the very force of circumstances, be stronger than his consultant compeer. In the matter of therapeutics as applied to the patient, and of individual prognosis, the family doctor has, from his more or less permanent, or at all events continuous, opportunities, many advantages over the temporary and casual second opinion. This statement must appear a paradox in juxtaposition with an admission I must also in all candour make. The weak joints in the harness of still too many general practitioners are, undoubtedly, diagnosis and pathology.

The gradual subsidence—I will not call it neglect—of pathological knowledge on the part of most men entering general practice is to be regretted.

Reasons, good, bad, and indifferent, may doubtless be advanced in explanation. The fact, I am sure, is a relic of bygone conditions and circumstances.

So also with the carelessness about exact diagnosis. In days gone by it was insisted that the family attendant's chief, if not only, duty was to help suffering humanity.

It is even so now. Symptomatology was ever clear; diagnosis might be obscure. The former indicated the remedy and the patient's

(e) Coleridge, "Christabel," part 2

(f) *Journal of the Statistical Society of London*, 1946, vol. ix., page 316.



relief; the latter, with pathological inspection, might satisfy scientific investigation.

In the posthumous address of Mons. Maurice Raynaud, of Paris, read by his friend Dr. Féréol at last year's Congress, this contrast is thus ably delineated:—"Gentlemen, the true cause of scepticism, the most powerful, that which at all times—formerly as at present—created so many sceptics amongst us, is that medicine is at the same time both a science and a profession. We need not complain of this; it is one of its glories, perhaps the highest, for it thereby satisfies all that there is most generous and most cultivated in the human heart—the need of helping those who suffer."

Slowly, however, but surely, a dependence on symptomatology as alone a guide to therapeutics is becoming less and less the characteristic of the general practitioner of to-day.

His present culture leads him also, alike with his consultant *confrère*, so to utilise symptoms as first to ask the question "Where?" thence to deduce, and thereby to base his treatment if possible on, a scientific diagnosis.

I commenced my Oration by instancing the founder of this Society—the late Dr. Wm. Cooke—as a type of what should be the family doctor.

I end it by remarking that even sixty years ago this general practitioner disdained not pathological knowledge.

Besides his own original investigations on the preservation of morbid specimens, he devoted himself to the translation(g) of Morgagni's great work. He was thereby the means of introducing to the practitioners of this country "a book," which, Virchow tells us, "became the point of issue of a movement which in a few decades has changed the whole face of science."

Thus utilising ever his powers and his responsibilities, every family doctor may reach that high standard of comparison, which an eloquent preacher in our national temple last year, with an audacious but yet true reverence, introduced as between the science and philanthropy of medicine and the manifold works of mercy accomplished by the Great Physician eighteen hundred years ago.(h)

So mote it be!

May the verdict of the future be of each and all of us:—

"His life was gentle; and the elements
So mixed in him, that Nature might stand up,
And say to all the world, *This was a man!*"(i)

ON THE

CURE OF EPILEPSY BY LIGATURE OF THE VERTEBRAL ARTERIES.

By WILLIAM ALEXANDER, M.D., F.R.C.S.,
Visiting Surgeon, Liverpool Workhouse Hospital.

In a short paper in the *Medical Times and Gazette* for November 19, 1881, I called attention to three cases where epileptic convulsions had ceased after ligature of one of the vertebral arteries. I also hinted at some cases where the carotids had been ligatured, and promised to give further results at a future time. This I had intended to do in July next, when a year would have elapsed since the commencement of these operations; but the results have been so striking, and so many inquiries have been made about the cases already operated on, that it has become absolutely necessary to report at an earlier period the amount of progress that has been made.

The three cases then reported have remained free from fits ever since. The first is engaged in a tea warehouse. The idiot boy has become obedient, observant, and intelligent, and efforts are being made to get him into an idiot asylum as a most promising pupil. The third case, an old hospital bird, has been in and out of hospital on various pretences ever since. He almost regrets his cure, as it lessens materially the facility with which he can obtain admission to hospital. He is at present in with a swollen leg.

The case I referred to, where maniacal symptoms appeared

after the fits, and sometimes in place of them, and where the maniacal symptoms subsided as well as the fits after ligature of one vertebral, is still in hospital. A relapse took place in this case in regard to both symptoms. The fits, however, were much fewer and less severe, and the maniacal symptoms never rose above an *excited manner*, whereas before they were *homicidal* in their tendency. In this case I have since ligatured the other vertebral artery; no bad effect followed the operation, and both epilepsy and mania quite disappeared. He has lately had one or two slight fits without loss of consciousness, and his mental and physical condition are so much improved that he would not be taken for the same individual.

The hopes then held out with regard to the possible effects of ligature of the carotid were speedily succeeded by disappointment, and the cases thus operated on are waiting until the cerebral circulation has been fully accustomed to its altered circumstances before the vertebrals are interfered with. I see the carotids have been ligatured previously ("Ranking's Abstract," vol. xxxvi., page 58) for epilepsy, and this I only found out within the last few days. My researches have failed to discover that any person has ever suggested ligature of the vertebrals for epilepsy; and I believe ligature of the vertebral was only done once before I performed it, and in that case for innominate aneurism, where the carotid and subclavian arteries were ligatured at the same time.

I will now record the results in a few more cases where the vertebrals have been ligatured, and then reply to some objections that have been made to the operation.

Case 1.—Nicholas M., aged seven years, a slobbering, howling idiot, was brought into the Liverpool Workhouse Hospital by a drunken, nervous, emaciated mother, on November 3, 1881. His father is also dissipated in his habits, but otherwise strong and healthy. The family consists of ten children, another of whom is mentally weak. His fits began when he was a year and eight months old, and have continued with increasing frequency ever since. From his admission on November 3 until November 23, when the left vertebral artery was tied, he had twelve fits (probably some more that were not noticed). The operation was performed by making a linear incision outside the sterno-mastoid muscle and outside the veins that converge to the lower third of the outer border of that muscle. The subcutaneous tissues were next cautiously divided until the finger could be inserted into the loose, fatty tissue that lies inside the scalenus-anticus muscle. Upon retracting the sterno-mastoid, with the subcutaneous veins and the internal jugular vein, towards the middle line, the sulcus towards which the vertebral artery runs was exposed. A little scratching with a director exposed the vessel, and ligation was a matter of routine. No bad symptoms followed, although the patient frequently displaced the dressing, as the valvular wound that I now practise in ligature of the artery keeps the depth of the incision undisturbed and unexposed to the air, in spite of the disturbance of the dressing that often takes place in epileptic, and especially in idiotic, patients. On December 5 his senseless howlings had diminished, and he began to take notice of the other boys in the ward. On December 6 he had a slight fit, and on December 20, 21, and 22 he had several fits. On December 28, as a few more fits had occurred since the 22nd, the right vertebral artery was also tied. The wound healed up well, and in a week the boy was running about, with only a small sore at the seat of incision. Up to January 23 he continued free from fits. His drunken mother then refused to pay for him any longer, and took him out. A fortnight after I saw the mother. The child had had no more fits, but he was evidently living in a very neglected condition, and I am afraid his mental state will not improve by reason of the deteriorating influences of his environment. The case was apparently a most hopeless one for operation, and the results obtained in stopping the fits and in clearing the boy's mind are to me as astonishing as they are gratifying.

Case 2.—Margaret O'D., aged seventeen years. She has been an inmate of the epileptic establishment at Dingle Mount, in connexion with the Liverpool Workhouse, for some years. I have been unable to obtain any particulars of her family history or of the cause of her fits, but Dr. Irvine, the medical officer to Dingle Mount, has supplied me with the subjoined record of the fits that have been observed during the year 1881:—

(g) Morgagni, "On the Seats and Causes of Diseases investigated by Anatomy." Translated, Abridged, and Elucidated, with copious Notes. 1822.

(h) "Teaching and Healing." A sermon preached before the International Medical Congress at St. Paul's Cathedral on the eighth Sunday after Trinity, August 7, 1881, by H. P. Liddon, D.D.

(i) Shakespeare, *Julius Caesar*, act v. sc. 5.

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1st week	1	6	1	2	0	0	3	2	3	4	0	57
2nd week	2	2	1	2	5	0	0	5	4	3	4	67
3rd week	3	2	0	9	2	1	0	3	0	7	2	Sent to work-house.
4th week	6	4	15	5	11	7	3	0	4	4	27	
Total	12	14	17	18	18	8	6	10	11	18	33	124

Total during year, 289.

The right vertebral artery was tied on December 21, and from her admission until the ligature she had a great number of fits. The wound healed without the slightest rise of temperature, and up to the present time (February 21) she has not had a single fit. Besides the freedom from the fits, her temper, which was very bad, has enormously improved, and except for a little flightiness and "mightiness" of manner, her character has changed remarkably.

Case 3.—George H., aged eighteen years, was admitted into the medical wards of the Liverpool Workhouse on June 17, 1881. His father was then alive; his mother was dead from heart-disease. He suffered from "hydrocephalus" when eighteen months old, and when at school he was struck by a "ruler." These are the only causes to which the disease can be ascribed. He had his first fit at fourteen years of age, and has had them ever since. No record was kept of their number in the medical wards, where every medicinal means was tried. He was admitted to the surgical wards on October 1, and from that until October 12, when the left vertebral artery was tied, he had *thirteen* fits. The wound healed without any circumstance occurring that calls for remark. His first fit after operation occurred on October 28. On November 3 he had another, and during November he had altogether thirteen fits (about half the number that occurred in the same time previous to the operation). On December 8 the right vertebral artery was tied, and on January 14 he was discharged to his home, as no fits had occurred since the operation. Next day, on leaving the hospital, news reached him of his father's death—the only person he had to go to—and the shock was consequently great. During the next few days he had some slight fits. At the present time these weaknesses do not trouble him, and have not for over a fortnight. He expresses himself confidently in the belief that a cure of the fits has taken place; and it is a remarkable fact that the patients have a feeling that a cure has taken place before time has proved it. They tell me "something has left them," or that "they feel quite different from what they did before." The physical and mental improvement are as marked in this case as in the previous ones.

Case 4.—Mary S., aged thirty-one, single, of temperate habits, was admitted to hospital from Dingle Mount on July 30, 1881, suffering from pneumonia and epilepsy. The fits began at the age of two years, after an attack of whooping-cough. They then ceased during childhood, to reappear again at puberty, when she was fourteen years old. Her mother died from fits. No record was taken of the number of fits during the summer, as her chest was in such a doubtful condition that operative interference was considered out of the question. At the beginning of the year her pulmonary disease had completely disappeared, and observations were then made upon the number of fits, when she was found to have as many as six in the week on an average. On January 18 the right vertebral artery was tied. She had one fit the evening after the operation, and no more until January 30. Up to February 20 she had had four fits altogether since the operation. She was then sent back to Dingle Mount, because she did not wish to have the other vertebral tied, on the ground that she believed the fits were leaving her. I did not press the operation, as I believe the fits will gradually disappear after ligature of one vessel, and in her case full opportunities will be afforded for testing this belief.

Case 5.—Mary E. W., aged twenty-one, admitted to hospital on January 27, 1882. Her father and mother are both alive and in good health. Of the family, four children died of fever, one of "water on the brain," and one of convulsions. Two girls are alive and healthy. The patient has had fits since she was eight years old, through a fright during play. She was, however, sensible till she was eleven years of age, when she fell in the street and cut her forehead. After this she became imbecile, and did not recognise anyone belonging to her. Dr. Irvine sends me the following record of the fits observed during the year 1881:—

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1st week	4	1	5	10	11	9	13	8	13	5	18	15
2nd week	4	3	9	10	12	19	14	5	10	16	10	23
3rd week	5	14	14	9	9	6	6	6	11	10	11	21
4th week	12	7	17	21	21	7	29	18	15	22	16	28
Total	25	25	45	50	53	41	62	37	49	53	55	87

Total during 1881, 582.

From January 27 until the ligature of the left vertebral artery on February 2 she had nine fits. The patient was a stout, flabby person, with a very short neck, and the operation of ligaturing the vertebral was one of no mean difficulty. The wound healed up without any unusual increase of temperature, and she had no fits for a week after the operation, and during the next fortnight she had only seven fits—a decided improvement upon the previous ten months. She is decidedly brighter-looking, and although she does not talk much, yet she looks around her more intelligently. A more hopeless case than this could not be imagined, and yet I believe I shall make something of her.

I have ten more patients under treatment, a report of whose cases I will reserve to a future paper. In three of them I have tied both vertebrae simultaneously, without any bad effects, and in none of these have any fits occurred since. In all, without exception, the amelioration has been decided, whether we have regard to the reduction of the fits or the improvement of the mental powers. No lesions referable to the diminished supply of blood to the spinal cord have been observed, and no deaths have occurred from the operation in any of the cases under my charge.

It has been objected to ligature of the vertebrae that the operation is merely psychological in its effects. "The mind of the patient is fortified by the idea that a cure has been effected, and hence can restrain the fits. On this ground a milder operation would be as effectual." To such an objection I would reply that the idiots operated on had no knowledge either that they had fits or were operated on for them. Many cases of severe burns have been under my care in epileptics, and the fits have occurred in spite of the burns. This fact disposes of another objection, that epilepsy and severe wounds do not co-exist. In some of my most successful vertebral operations the wound healed by the first intention, and I can trace no relation between the efficacy of the cure and the wound-trouble, but decidedly the reverse.

Then, again, it is difficult to understand how ligature of the vertebrae can effect any change, considering the free anastomosis in the cerebro-spinal circulation. This theoretical difficulty is not of much force when arrayed against opposing facts. But, even theoretically speaking, the vertebral arteries have few anastomoses, and I have read a paper of Mr. Moxon's somewhere, in which he attempts to show how lesions of the cord may depend on deficient supply of blood through the vertebrae. My operations, I think, prove that he was in error, and that the lesions he refers to depend more on venous congestion than on spinal anæmia. Within the last few days two observations have confirmed this view. I operated on a hopeless epileptic with a partially paralysed right arm, and a deformed and immovable hand and wrist. A few days after, he called my attention to his hand, which he could move with a facility such as he had not done for years. Another patient, upon whom I operated with my friend Dr. MacDonnell about a fortnight ago, was afflicted with a peculiar stiffness of articulation and a slowness in getting out the words. I saw him on the same day on which I witnessed the mobility of the wrist. The improvement in his articulation was so decided as to have already attracted the attention of his attendants and fellow-patients. Now, to what could this have been due but the relief of the pressure of passive congestion? The suggestion here offered I intend to follow up in my wards in the treatment of chronic diseases of the spinal cord in other than epileptic cases, but further notice here would be premature.

There is a physiological observation I would here mention, and which I have purposely kept to the last. When the vessel is ligatured the pupil on that side becomes contracted. In the majority of cases this contraction maintains; in Mary S.'s case it is still distinct. When the opposite vertebral is ligatured, the opposite pupil contracts and the pupils again become equal. No interference with sight occurs, and in some unilateral ligatures the contraction passes off. The inferior cervical ganglion rests upon the carotid, and sends branches along these vessels. These branches are included

in the ligature, and somehow affect the pupil. Or is the pupil affected by a change in the circulation at the base of the brain?

The less I say at the present time, the less shall I have to retract in the future. I can, however, now say that ligature of the vertebrals has a decided effect upon the mental condition of epileptics and upon the number of the fits in epilepsy, and I can strongly advocate the operation where other means have failed, and where the fits are so numerous as to interfere with the patient's usefulness or with his mental powers. I have tried it now in hereditary cases, in epilepsy following scarlet fever, blows, fright, and in cases where no cause could be ascertained. In all the effect was beneficial, and mostly curative as far as time has allowed us to judge.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

EAST LONDON HOSPITAL FOR CHILDREN.

CASE OF SUDDENLY OCCURRING CONVULSIONS IN A CHILD THREE YEARS OLD—HIGH TEMPERATURE—DEATH WITHIN TWENTY-FOUR HOURS.

(Under the care of Dr. DONKIN.)

A SHORT time ago I saw a little boy, who, up to the morning of the day on which he was taken ill, was apparently in thoroughly good health. He had never suffered from anything but a discharge from one ear, which had lasted several months, but had ceased about three days before his illness. He was robust in appearance, and of normal mental and physical activity. Both gout and struma existed in the family to which he belonged; many of his brothers and sisters having suffered from obvious strumous affections.

Late on the morning of the day to which I refer, he was noticed to be fidgetty and excitable, and his limbs were seen to twitch; he also vomited after taking some milk. He was seen by a medical man, who found his temperature to be normal. No rash or other obvious symptom was observed. He became gradually worse, and about two hours before I saw him, at five o'clock in the afternoon, had been in almost continuous "convulsions." I found him with a burning flush on his face and over the anterior aspects of both thighs. There was constant clonic spasm, though not violent, of trunk and limbs, and a scared expression of face. There was no twitching or paralysis of face, no squint, no apparent tenderness on any part of the body, and no throat symptoms. The *tache cérébrale* was markedly and rapidly produced. The temperature was 105° , and the pulse-beats 200. He appeared to recognise those around him; was able to sit up when supported, and to drink some water. Examination of the chest showed nothing abnormal.

This condition of things persisted, the temperature rising to 107° (twice reduced some three or four degrees in the course of the night by a bath). He died the next morning at eight o'clock, the temperature being about 106° , and coma having set in about an hour and a half previously. The red rash on the thighs disappeared before death. A post-mortem examination was unattainable.

Remarks.—If this case be regarded as one of meningocerebritis, set up (or not) by the ear-disease, it is worthy of remark as being of very short duration, unmarked by obvious headache, and almost devoid of any prodromal stage. A knock on the forehead, which he had received by running against the edge of a table about ten days before his death, and after which he cried a good deal, but soon recovered, may perhaps be left out of the question of causation, and there seems no sufficient justification for regarding the case as a malignant form of exanthematic disease. The diagnosis was not absolutely certain, but, in spite of the absence of the post-mortem examination, which might have been so valuable, I place the case on record on account of the suddenness of onset of the affection and the extremely rapid course which it ran, owing probably in a great degree to the persistence of high temperature.

GLASGOW OPHTHALMIC INSTITUTION.

CASE OF COMPLETE DETACHMENT OF THE RETINA, TREATED BY PUNCTURE OF THE SCLEROTIC.

(Under the care of Dr. WOLFE.)

[Reported by Clinical Assistant J. CAPPIE SHAND, M.B.]

MRS. G., aged forty-seven, applied to the Ophthalmic Institution at the beginning of December for deficiency of sight. Ophthalmoscopic examination showed slight opacity of the vitreous of the left eye, and in the right complete detachment of the retina, with pigment floating in the sub-retinal effusion. The blindness in this eye was complete. She could not see the light of a gas-burner held before her or moved in any direction, but could discern only a faint glimmer of the burner at the lower outer margin. Tension slightly increased ($T=1$). Dr. Wolfe pronounced the case to be detachment of the retina, complicated with choroiditis; and unfavourable for operative interference on account of this complication. The patient presented herself again in the middle of January, complaining of pain in the right eye. She then suffered from a smart attack of iritis in the blind eye. Solution of atropine and the unguent. hydrarg. ammon. chloridi were applied to combat the local inflammation. This treatment was successful, so far, but the lower margin of the iris still remained adherent to the lens capsule. As the patient continued to complain of frequently recurring pain in the right eye, and these attacks inconvenienced the vision of the other, Dr. Wolfe determined to relieve the pain and tension of that eye by a puncture of the sclerotic, and to withdraw the sub-retinal effusion.

The operation was performed on February 19, in the following manner:—The patient having been put under chloroform, and a speculum introduced, the eyeball was fixed with the forceps, and rotated upwards, whilst Dr. Wolfe made a vertical slit with scissors into the conjunctiva and subconjunctival tissue, and laid bare the sclerotic at a point below the equator at its anterior aspect. Into this incision he introduced two small strabismus hooks, handing the hooks to an assistant to keep the lips of the wound apart, whilst he seized the eyeball with the forceps at a point opposite to the wound with the left hand, and with a straight narrow lance in his right he punctured the sclerotic, pushing the lance right into the dropsical effusion. On withdrawing the lance gently, and pressing on the lower margin of the scleral wound, about half a drachm of yellow serum spurted out, followed by a little black pigment which floated in it. (Dr. Wolfe generally introduces a fine spatula into the wound in order to make sure that the whole fluid has been evacuated, and he also brings the edges of the wound together with silk ligature; but as, in this case, sickness and slight tendency to retching supervened, he thought it advisable not to disturb the part, especially judging from the quantity of fluid which was removed that the whole effusion had been evacuated.) The eye was dressed with strips of court-plaster, dry lint, and bandage. The patient was kept in a dark room for four days.

February 23.—The eyelids were opened to-day and examined. The sight had so far improved that she could see everybody in the house, distinguish features, count figures, put her finger upon a ring of the examiner, and recognise the colours: red, green, and blue. A cursory ophthalmoscopic examination showed the disappearance of the serous effusion, but a considerable wrinkling of the retina, especially at its lower periphery, while the centre was tolerably free. The remarkable circumstances of the case noted at the time were the entire absence of pain or feeling of uneasiness in the eye since the operation, but rather a feeling of greater comfort in it, as well as the healthy appearance of the conjunctival sac. Indeed, with the exception of redness at the spot where the incision had been made the rest of the conjunctiva bore no trace of an operation.

Remarks.—This operation was introduced by Dr. Wolfe in 1878, the first case having been published in the *Lancet*. He has since done the operation several times without recording any. He laid it down as a principle that only in cases of simple effusion without change of structure might a satisfactory result be expected; that where there are changes in the vitreous, choroid, or retina, no benefit can accrue from

an operation. Neither can we expect any success when there is laceration of the parts of the retina, so that shreds of it are floating within the effusion. Cases like these may occur, however, and these indeed form the majority, when we are called upon to operate simply to put the eye in a more healthy condition. And considering the safety of the operation if properly performed, Dr. Wolfe thinks that we are justified in resorting to it even for obtaining a moderate degree of improvement of sight.

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Medical Times and Gazette.

SATURDAY, MARCH 11, 1882.

ÆSTHETICISM.

PHYSICAL beauty and health are one. A person may be healthy without being beautiful; but beauty of the best, most enduring, and most generally admired type depends upon perfect health. It is the result, not merely of the health of the individual, but of the physical development transmitted by lines of healthy ancestors. Mr. Herbert Spencer has shown that grace of movement depends upon economy of muscular effort. Symmetry of form means perfect and proportionate development of every part. Beauty of countenance signifies a type of face framed in the past by ancestors whose thoughts were habitually grave, pure, generous, whose perceptions were acute, and their senses cultivated.

All persons have some ideal of beauty, some preference or choice in the matter of that which they admire in others. And all, especially the young, strive more or less consciously to form themselves, their appearance and character, upon that which seems to them the most beautiful and perfect ideal. By such efforts the character and habits of the individual are moulded, and habits react upon physical development. Hence it is not so foreign to the objects of this journal as it may at first appear, for us to consider the conditions upon which physical beauty depends.

During the last few years a picture-gallery has been opened in London in which a certain group of artists have set before the world a kind of beauty which was not that commonly admired. Their productions have been ridiculed by some, enthusiastically welcomed by others. Attention

has been drawn to the special features of this school by the writings of a few persons—writings having a distinct manner, style, and burden of their own, and holding up, with more or less clear definition, certain artistic and ethical principles. As usually happens, the peculiarities of the leaders have been the points chiefly caught at, and imitated or exaggerated, by the disciples. These æsthetes, as teachers and pupils alike are called, are few in number, but they have afforded a clever artist in the pages of *Punch* the opportunity of making much fun at their expense; they have been parodied in a comic opera which has been unusually successful; and they have been held up to contempt in a comedy which has had a long run at another theatre; and therefore, thanks to the artist, the dramatist, and the musician, their peculiarities have become widely known. We suspect, too, that the general opinion—the opinion, we mean, not of the cultivated few, but of the masses of people who have got any idea about æstheticism and æsthetes—is that the peculiarities of the latter are absurd, ridiculous affectations.

This opinion of the external manifestations and peculiarities we will not contest; for art criticism is not our business. But it is a general law, that no error can spread widely unless it contain some grain of truth. For the "high æsthetic line" to have attracted anybody, it must have had something in it which was true and genuine. As we have already said, that which is healthy, that which is useful, is alone that which is beautiful. There is no beauty in ill-health. And as everything which concerns the health and beauty, both of mind and body, falls within our province, we think we shall not be going beyond it if we ask attention to some considerations which may be regarded as a justification of æstheticism.

The æsthetic craze, to use a term given to it by the "Philistine" outsiders, seems to us a reaction against muscular Christianity on the one hand, and asceticism on the other. The writings of Thomas Hughes and Charles Kingsley set before the generation to whom they spoke an ideal undoubtedly of high excellence. They glorified physical strength and courage, and inculcated truth and fearlessness as the highest of virtues. The painter who should depict their typical hero would limn something very different from the pallid, hollow-cheeked, sad-eyed beings of the Grosvenor Gallery. But it is the fate of most teachers to find disciples who do more than follow, who go beyond what they have been taught, who adhere to it with a too exclusive devotion, and in their desire to emphasise, exaggerate. In the minds of such, the delight in animal vigour, in outdoor life, becomes pushed to the exclusion of intellectual pursuits, the neglect of literature, art, and the influences which refine life. The admiration of courage and of strength leads them to confound gentleness with cowardice, self-restraint and prudence with weakness, liberty with anarchy. The love of outspoken truth takes with such the form of impatience of reserve and reflection, of calm judgment, contempt of thoughtful analysis, want of consideration for the feelings of others. In short, the exaggerated muscular Christian becomes a being strong, brave, and frank, but also a somewhat coarse, impulsive being, wanting, or at least not appreciating, delicacy and refinement.

The type we have just described stands in opposition to the ascetic ideal, and probably the strength and warmth with which its admirers contended for its excellence was increased, if not kindled, by the excesses of asceticism. The ascetics, Catholic and Puritan alike, looked upon body and spirit as separate and opposed — the former being but a prison in which the latter was for a time enshrined, a clog impeding its upward flight, an ever-present instrument in the hands of the evil one to lure it to perdition. Therefore, in their

eyes, physical strength and vigour were sometimes as much a curse as a blessing, and ill-health often an occasion for devout thankfulness. The flesh needed to be chastened, not to be cared for and developed; there was in it no good thing. The talent of the artist was thrown away in depicting mere physical beauty. The aim of education should be to develop the mind, not the body. The "pride of sinful flesh" had to be subdued. The appetite which the ascetics looked on as a snare beyond all others in danger was the sexual: a special crown was reserved in heaven for virginity. The beauty of the female form was that which above all others a Christian artist should shrink from painting, and fear even to look at.

"O lips that the live blood faints in, the leavings of racks and of rods!
O ghastly glories of saints, dead limbs of gibbeted gods!"

cries the fleshly poet, in abhorrence of this crushing out of nature.

Now, as everyone knows, these doctrines have been held by many persons of singularly noble character. How far the doctrines moulded the character, and how far the already formed character the doctrine, we will not here discuss. It is sufficient to point out that they were associated with purity and unselfishness, and with high and beneficent aims. Nevertheless, they were in one way morbid: they sought to check natural and healthy appetites; to force body and mind into an abnormal, strained, and for the mass of people impossible mode of living. The blind insistence on a life conformed to the ascetic standard, splendid as might be the results produced in those who were strong enough to endure it, yet led on the moral side to deceit and hypocrisy, and on the physical to stunted physical and intellectual development, and not seldom to insanity.

Now, æstheticism may justly be regarded as embodying a revolt against these two opposed and one-sided tendencies—an attempt to refine the coarseness and materialism which a too muscular Christianity engenders; and at the same time to kindle a healthy delight in physical grace and beauty, and vindicate the enjoyment of the natural appetites. As the sexual passion was the one which the ascetics looked upon as the master-weapon of the powers of darkness, so it is the one upon the strength and nobility of which the æsthetic school loves to dwell. The ascetic gloried in suffering; the æsthete in pleasure and ease. How far the æsthetes, in their turn, have pushed refinement into effeminacy, and the glorification of physical beauty and the recognition of the power for good as well as for evil of the sexual passion into sensuality, we will not here discuss.

The point which we wish to bring out is this: that in what is called the æsthetic movement there does lie a truth which there may be danger of overlooking. We take it to be this: that perfect beauty and perfect health depend on the due and proportionate exercise of *all* the functions of the body. Muscular strength, courage, truthfulness, cannot be too much admired, nor can habits of self-control be too highly appreciated. But none the less are grace and refinement excellent things; and the happiness which comes from the enjoyment of physical comforts, and from honourable marriage and family joys, is natural and in the highest degree beneficial.

THE MEASUREMENT OF THE INTRA-ABDOMINAL PRESSURE.

It has long been familiar to surgeons that some manipulations—*e.g.*, the taxis for hernia—are more successful when the patient is recumbent, and that certain diseases are more troublesome when the patient is erect. Dr. Matthews Duncan pointed out some years ago that the abdominal

viscera are not kept in position merely by the strength of ligaments overcoming the effect of gravity; and he styled the combination of forces which retains them in their place the "retentive power of the abdomen." Since then this phrase has been quoted by various writers: alluded to or adopted by some without explanation, and often, apparently, without comprehension; and dismissed as meaningless and chimerical by others. No English or American writer, that we are aware of, has taken the trouble to reason out, verify, or correct the suggestions of Dr. Duncan.

Nevertheless, the subject of the pressure relations of the abdomen is extremely important. It bears upon the physiology of the circulation, of respiration, of the movement of chyle, of digestion, of the renal secretion, the treatment of hernia, of the diseases and injuries of abdominal bloodvessels and viscera, catheterism, etc. It is perhaps more interesting to the gynaecologist than to anyone else, because the structures with which he has to do are so directly influenced by it.

It is for these reasons—the importance of the subject, and the vagueness of the references to it in English and American literature—that we think it well to call attention to what has been done in Germany towards accurately determining the intra-abdominal pressure, as to amount and conditions of variation; notwithstanding that the papers to which we shall have to refer are no longer recent.

The first attempt at measuring the intra-abdominal pressure was made by Braune in 1865. He inserted into the rectum a glass tube having a graduated upright limb, through which he injected water into the bowel, and then observed the height at which the water in the vertical tube stood. He found that in the erect posture the pressure of the fluid in the rectum supported a column of water about 40 centimetres high (about 15½ inches), that is, reaching about to the level of the ensiform cartilage. The differences in different individuals were very slight. It was pretty much the same whatever quantity of water (the quantities tried ranged from half a pound to four pounds) was thrown into the bowel. The pressure fell when the horizontal position was assumed. By voluntary effort it could be raised till it reached 100 centimetres (39 inches). Braune's investigations, therefore, besides supplying an estimate of the amount of the intra-abdominal pressure, showed this important point, that it was only slightly affected by the amount of the abdominal contents.

The investigation of the subject was resumed by Schatz, who repeated Braune's experiments, using, however, a tube in the bladder instead of one in the rectum, and with the result of confirming the estimate made by Braune. Schatz, however, did not think that either his own researches or those of Braune were altogether satisfactory, for the reason that the pressure of fluid, both in the bladder and in the rectum, was too much dependent on the muscular coats of those organs to faithfully represent the pressure in the interior of the abdomen generally. Contraction of the rectum, for instance, should a kink in the bowel or a mass of fæces occupying its canal prevent free movement of water upwards, would raise the pressure in Braune's tube; and for the same reason, variations in the general abdominal pressure would not immediately affect that of the water in the rectum. It seemed to him that a more sensitive medium was required; and that the intestinal gases best fulfilled the conditions necessary. There was also needed an intelligent subject for experiment—one who could be depended on not to affect the pressure by putting voluntary muscles in action. This difficulty Schatz got over by making the experiment upon himself. With a tube in the rectum attached to a manometer, he measured the pressure of the gases in the bowel (injecting air if the gut was empty of gas), and noted

the variations in that pressure consequent upon posture and muscular action.

We will now quote the results which Schatz obtained. As he has embodied them in the form of definite propositions, we are able to do so with brevity. He found that the intra-abdominal pressure amounted in the upright position to the weight of a column of water between 25 and 30 centimetres high. When the body was inclined forward (the movement taking place at the hip-joints) the pressure diminished, and with the utmost possible anterior depression of the trunk (a movement unavoidably combined with bending of the vertebral column) it sank to zero, and, says Schatz, in many persons, and under certain conditions, may even be negative. Backward inclination of the trunk (with bending of the spine) increased the abdominal pressure. In the upright position the most customary attitude (that is, the most natural and easy one) was the one attended with the lowest intra-abdominal pressure. Any unusual bending or straightening of the vertebral column (the position of the pelvis remaining unaltered) brought with it an increase in the pressure. Lateral inclination of the trunk increased the intra-abdominal pressure, the more so if bending of the vertebral column formed a part of this movement. In the customary sitting posture, in which the vertebral column is slightly more bent forward than when standing, the pressure within the abdomen was about four centimetres higher than in the upright position. But if the trunk was held stiffly erect, the pressure became the same as when standing. Inclination of the body backwards increased the pressure, and this increase was greater if the vertebral column were kept straight than if it were allowed to continue slightly bent forward, as is usual in sitting. Anterior inclination of the trunk only increased the pressure when the vertebral column was held straight, and then only in the lesser degrees; a considerable bending forwards always diminishing the pressure. If the trunk was supported in the inclined position, either by the arms in front, or by a piece of furniture behind, the pressure was less than when it was alone sustained by muscular effort. When the body was supported in a horizontal position, the intra-abdominal pressure was greatest in the supine, and least in the prone, position; and in the positions intermediate between these two, it diminished as pronation was approached. The pressure, when the abdominal contents depended from the spine, was about ten centimetres less than when they rested on it. As a general proposition, the higher the thorax above the abdomen, the greater the pressure; the lower the thorax, the less the pressure. When the trunk was completely supported, whether lying on the back, on the side, on the knees and elbows, or on the knees and hands, the intra-abdominal pressure was always least when the thighs were at about a right angle to the trunk. A greater flexion or a greater extension than this increased the pressure.

The above results are of much interest. Although perhaps a shrewd and thoughtful clinical observer might have foretold some or all of them in a general way, yet they have this merit, that they are exact, and obtained from actual experiment, not from theory and general consideration; and exactness is the true note of a scientific method.

HEALTH OF ENGLAND IN 1881.

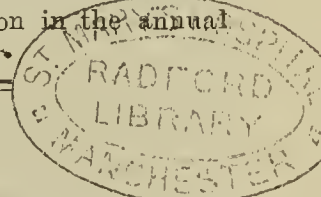
THE Registrar-General has published a short summary of the health statistics of England and Wales for the year 1881. The natural increase of population during the year by excess of births over deaths was 391,705, against 354,134 and 353,019 in 1879 and 1880. The estimated increase of population during the year, based upon the rate of increase

that prevailed during the decade 1871-81, was 349,077, and 42,628 less than the excess of births over deaths. According to the returns issued by the Board of Trade, 238,207 British emigrants (including 140,716 English, 27,237 Scotch, and 70,251 Irish) left the various ports of the United Kingdom during the year. Compared with the year 1880, the increase of emigration was equal to 25.6 per cent. from England, and 21.9 per cent. from Scotland, while Irish emigration showed a decline of 22.0 per cent. The birth-rate in 1881 was equal to 33.9, and the death-rate to 18.9 per 1000 persons estimated to be living in the middle of the year. The birth-rate was lower than that recorded in any year since 1858, when it was 33.7. The death-rate showed a marked further decline from the rates prevailing in the three preceding years, and was the lowest rate recorded in England and Wales in any year since civil registration was established in 1837. It was no less than 2.5 per 1000 below the average rate that prevailed in the ten years 1871-80, implying that nearly 66,000 persons survived in England and Wales, whose deaths would have been recorded had the average rate in the preceding decade been maintained. The 491,813 deaths during the year included 115,100 of infants under one year of age, and 130,865 of persons aged upwards of sixty years. The rate of infant mortality, measured by the proportions of deaths under one year to births registered, did not exceed 130 per 1000, whereas it was equal to 152, 135, and 153 in the three preceding years, and had averaged 149 per 1000 during the ten years 1871-80. The rate of mortality among persons aged upwards of sixty years was equal to 67.2 per 1000 persons living at these ages, against 77.9 and 68.5 in the two preceding years. The deaths from all causes included 14,073 from scarlet fever, 13,764 from diarrhoea, 10,113 from whooping-cough, 7149 from fever (principally enteric), 7076 from measles, 3088 from small-pox, and 2976 from diphtheria; thus, 58,239 deaths were referred to these principal zymotic diseases, equal to an annual rate of 2.24 per 1000, against 2.44 and 3.30 in the two preceding years. The mean annual death-rate from these diseases was equal to 3.87, 4.11, and 3.36 per 1000 respectively in the three decades, 1851-60, 1861-70, and 1871-80. Compared with the numbers in 1880, the fatal cases of small-pox and diphtheria showed an increase during last year, whereas the deaths from each of the other zymotic diseases showed a considerable decline. The annual death-rate from "fever" (including typhus, enteric, simple continued, and undefined fever) continues to decline; in the three most recent decades it was equal to 0.91, 0.89, and 0.49 per 1000 respectively, while in 1881 it did not exceed 0.27. These numbers for 1881 are derived from the quarterly returns furnished to the Registrar-General by the 2175 local registrars, and are subject to revision when the causes of death and other details are finally classified and tabled for publication in the annual report for 1881.

THE WEEK.

TOPICS OF THE DAY.

THERE appears to be little or no doubt that the wretched man who on Thursday last week fired a fully loaded pistol at our Gracious Queen has been at one time under care and treatment as a person of unsound mind; but whether he ever has been or is now so insane, so deficient in reasoning power or in self-control, as not to be responsible to the criminal law, is another question, and one that has yet to be decided. For it must be remembered that a man may be insane, and yet not so insane as to be incapable of exercising self-control from a fear of possible or probable punishment. In which category of insane persons, if in either, Roderick Maclean is



to be placed, has yet to be considered. Meanwhile the medical profession rejoice not only that Her Majesty escaped all physical injury at the time of the attempt on her life, but in the assurance, on the highest authority, that she is no way the worse; though such an attack might well, in despite of Her Majesty's courage and calmness, have had an ill effect on her general health.

In a recent number of the *Fortnightly Review* is published an article, by Dr. Gerald Yeo, on "The Practice of Vivisection in England." After replying to the arguments of the anti-vivisectionists, and explaining at some length the law on the subject as it now stands, the writer adds:—"As a working physiologist I can assert that no attempt to repeal the Act is being made at the instigation of the physiologists of this country; and I know that they accept the present law for the following reasons: First, because it insures the absence of any cruelty that theoretically might be perpetrated by ignorant or malicious persons, under the guise of physiological experiment; and, secondly, because, if reasonably administered, its use as a protection, both to animals and physiologists, may in some degree compensate for the hindrance it places in the path of medical research and teaching. We are not content with the Act because it has failed to silence, as we hoped it might, the unfounded allegations of cruelty brought against us by a certain class of persons. But of course that was not the fault of the Act. We are not content with its administration, since the delays in granting licences and the general official procrastination often amount to practical refusal and prohibition by loss of opportunities. Physiologists also complain of the action of the Home Office in interfering with the duties assigned by the Act to the scientific judges it appoints. In conclusion, I would point out that, in attempting to grasp what experimental inquiry has done for medical knowledge, it is necessary to bear in mind the condition of things medical a couple of hundred years ago, when old women were as successful in charming away disease, as doctors were in curing it with their purely irrational code of therapeutics. I may fairly ask, should we now be grateful to a society or a legislature which had then successfully striven to prevent what the best authorities of that time considered to be the best way towards the advancement of medical knowledge? The improvements of the present day may not all appear to be traceable directly to any given sets of experiments on living animals, which form but a very small, though indispensable, part of our science; but they have certainly all grown out of physiological investigation. For the practical medicine of our times is as surely the outgrowth of scientific physiology, as is the plant of its roots; and without physiological experiment the treatment of disease could never have attained the firm and rational basis upon which it now rests."

At length we are enabled to announce that the House of Lords has begun to consider the appeal put forward in the celebrated Hampstead Small-pox Hospital case. Last week the Lord Chancellor, Lords O'Hagan, Blackburn, and Watson met to hear the case, which, it is almost needless to state, is expected to take some time. It is set forth as follows:—"The Managers of the Metropolitan Asylum District v. Hill and others (appeal No. 1): The Hampstead Small-pox Hospital Case." It will be remembered that this is an appeal against an order of the Court of Appeal made on December 18, 1878, in an action in which the respondents were plaintiffs, and the appellants were defendants, by which it was directed that the appeal of the respondents be dismissed if within two months the appellants elected to pay, and if within fourteen days after the completion of taxation they did pay the costs of the former trial, except in so far as such

costs were increased by the respondents' contention that the appellants had been guilty of negligence in the management of the Hospital, and that all other costs be costs in the cause; and it was further directed that if the appellants did not elect to pay, and pay such taxed costs within the times mentioned, then that the respondents' appeal be allowed with costs. When we state that the proceedings in the present case were commenced in November, 1876, and that a final decision has been a matter of the utmost importance to a large public body, we think it will be conceded that there are some just grounds for complaint against the proverbial law's delay.

A case recently reported from Wolverhampton forcibly illustrates the necessity which exists for a careful and constant supervision of all sources of milk-supply. At the local police-court a woman was summoned by the inspector under the Food and Drugs Act for selling adulterated milk. In the course of the proceedings, the wife of the farmer from whom the article was obtained was called, and she admitted that, notwithstanding she had been warned by the medical officer of health that the water procured from a pump in the yard was contaminated with sewage from an adjoining drain, she invariably used it to clean out her cans, and then put the rinsings into the milk, which she sold to the defendant and other local dealers. The inspector stated that it was in consequence of complaints of the bad quality of the milk retailed, and the large amount of fever prevailing, that he had moved in the matter. Eventually the case was adjourned for further inquiries, and possibly it may be hereafter explained why no steps were taken for insuring the prompt closing of the well in question, if the medical officer was cognisant of the fact that it was dangerously polluted.

The recent examination held at Burlington House for commissions in the Army and Navy, and Indian Medical Services, brought together to compete for these appointments the largest number of candidates attracted for some years. For the Army, the total number of candidates was sixty-four, among whom the actual requirements of the Department rendered it necessary that only ten appointments should be given; but the general and educational qualifications of the candidates were so exceptionally high, that at the close of the examination fifteen appointments were made. Only one instance of failure to reach the prescribed standard occurred. The nationality of the candidates was almost equally divided between England and Ireland, very few from Scotland having presented themselves. For the Navy, twenty-four candidates appeared for six vacancies; and for India, thirty-one candidates presented themselves for eight vacancies—in round numbers about four applicants for each vacancy in each of the Services. It is satisfactory to find that, in the case of the Army and Navy at least, the improvements and concessions accorded by the Government have been effectual in securing eligible candidates in ample numbers. The pass-lists of both the Army and Indian candidates will be found in another column.

It is not surprising that a question should recently have been addressed to the Home Secretary, seeking information as to the statement that eight dead bodies had been recovered from the Thames, in the metropolitan district, in as many days at the end of last month. Sir William Harcourt seemed to be of opinion that the whole of the eight committed suicide, and that these deaths had nothing to do with the lawless condition of the Embankment. All the authorities do not, however, take this view, and one difficulty in the way of accepting the suicidal theory is the fact that, although suicides in all London averaged last year a little more than one per diem, the number of bodies taken from the river did not average more than two

per week, and it can hardly be supposed that such a sudden and abnormal increase is entirely due to the development of suicidal mania. It may be mentioned that of the 108 dead bodies taken from the Thames last year, ninety-four were males and fourteen females, and in most cases they were not recovered until so long after death that their identification was difficult, if not impossible. According to the report of Colonel Henderson, forty-seven bodies "found dead" and unknown were photographed, but not identified. This directs attention to the lack of facilities which at present exist for inspection of the unknown dead in the various mortuaries, and more than one suggestion has already been put forward for the establishment of a large central mortuary on the model of the Morgue, in which bodies awaiting identification might be placed.

At the monthly meeting of the Hackney Vestry, held last week, Mr. Walker drew attention to the unsanitary state of some of the newly formed roads at Hackney, and to the death of a girl at Cazenove-road from scarlet fever and blood-poisoning, which the medical attendant certified was, to the best of his knowledge, owing to the "hard core" used in road-making. Several vestrymen bore testimony to the filthy materials of which some of the roads in the district were made, the bad smells they occasioned, and the consequent sickness; and ultimately the Vestry agreed to forward the following resolution to the District Board of Works:—"That, in the opinion of this Vestry, due care is not always taken by those in authority, when permitting dust-bin refuse to be used for road-making, to see that it is free from all offensive and health-endangering matter; and that in all cases where 'hard core' is being laid down the inspector of nuisances should inspect the same, and vigorously carry out his duty by having it removed if he finds it offensive or injurious to health." It was stated in the course of the proceedings that the road material used is now disinfected before it is laid down.

We regret to see that the Earl of Devon, in his capacity of President of the London Fever Hospital, Liverpool-road, has issued a notice that at the annual meeting of the Governors of the Hospital it was decided that, owing to the want of funds, two of the wards must now be closed. The Hospital has no endowment, and last year it exceeded its income by £4000; its available capital is now reduced to less than £5000, and if it does not receive largely increased support it will have to be entirely closed next year. This result would be much to be regretted; for though, since it was established, the Asylums Board have opened fever hospitals, and here and there a London parish has provided itself with a building for the treatment of infectious cases, a large number of patients have annually resorted for treatment to Liverpool-road. Last year over 1000 cases were admitted, and at the present moment more than 100 of its beds are occupied; there are also private rooms available for patients of a superior class. It is stated that during the past three years the Hospital has received upwards of 600 domestic servants, who have been removed to it from their masters' houses, yet only eleven of the masters have given donations sufficient to cover the expenses of the patients sent in. Under these depressing circumstances it is not to be wondered at that the Governors put forward an urgent appeal to the public for assistance, which we hope will be liberally responded to.

It was stated at a recent meeting of the Bristol Board of Guardians that a man who had lately been employed in the disinfecting ward was found in the street in a semi-unconscious state, and sentenced to seven days' imprisonment for drunkenness. He was first put to the treadmill, then transferred to the stone-yard, and ultimately put to pick oakum.

On being discharged he went to the workhouse, and the medical officer found him to be suffering from the worst form of typhus fever.

An anonymous donor, who last year bestowed £2500 on ten of the Liverpool charities, has recently, through the agency of the Central Relief Society, bestowed another £2500 upon the following institutions:—Royal Infirmary, Royal Southern Hospital, Northern Hospital Dispensaries, Cancer Hospital, Training-ship *Indefatigable*, Central Relief Society, and [Newsboys' Home, £200 each; Infirmary for Children' Stanley Hospital, Institution for Infectious Diseases, Seamen's Orphan Institution, Bluecoat Hospital and School for the Blind, £100 each; Male and Female Orphan Asylums, £50 each; the Infant Orphan Asylum, £30; the Ladies' Charity, Medical Mission, Eye and Ear Infirmary, School for the Deaf and Dumb, Nash-grove Ragged School, Governesses' Home, £25 each; and Society for Prevention of Cruelty to Animals, £20.

CAMBRIDGE LOCAL EXAMINATIONS.

THE Senate of the University of Cambridge have agreed to the proposal of the Local Examination Syndicate to hold one of their examinations in the month of September or at the end of August. This examination is to be established for the especial convenience of intending medical students who desire to pass in September one of the preliminary examinations recognised by the General Medical Council; and at the same time to accommodate students who wish, before going up to the University in October, to obtain through the local examinations the certificates that will exempt them from presenting themselves for the "Previous Examination" of the University. The advantage of taking this course is obvious, forasmuch as students who are thus excused the Previous Examination can at once, on going up to the University in October, commence attendance on the Natural Science and Medical courses, and consequently be sooner and better prepared for the examinations. The centres in which the examinations shall be held and the exact date have not yet been determined.

ST. BARTHOLOMEW'S HOSPITAL.

ON Thursday last week Mr. Marrant Baker was duly appointed to the post of fifth Surgeon to St. Bartholomew's Hospital; and at the same Court of the Governors, Mr. W. Harrison Cripps, F.R.C.S., one of the Surgeons to the Great Northern Hospital, was elected Assistant-Surgeon to St. Bartholomew's, in place of Mr. Marrant Baker. Mr. Cripps had been one of the Assistant Demonstrators of Anatomy in the Medical School of St. Bartholomew's, and still is one of the Surgical Registrars to the Hospital; and obtained the Jacksonian Prize of the Royal College of Surgeons in 1876, for an essay on Cancer of the Rectum. He was practically unopposed in his canvass for the appointment of Assistant-Surgeon; but the vacancy for a fifth Assistant-Surgeon, the election to which will take place on the 23rd instant, will be warmly contested.

ARMY MEDICAL SERVICE.

At the competitive examination in London, on February 20, the following candidates were successful for appointments as Surgeons in Her Majesty's British Medical Service:—

	Marks.		Marks.
S. Westcott	2,295	A. C. A. Alexander ...	2,095
H. R. Whitehead	2,280	H. S. McGill	2,065
B. M. Skinner	2,200	A. A. Pechell	2,060
C. R. Bartlett	2,195	C. R. Tyrrell	2,050
J. D. T. Reckitt	2,175	J. Hickman	1,980
T. A. P. Marsh	2,150	W. B. Thomson	1,975
R. Kirkpatrick	2,140	H. E. Deane	1,945
S. O. Stuart ... ..	...	...	1,940 marks.

INDIAN MEDICAL SERVICE.

APPENDED is a list of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examination held at Burlington House on February 20 and following days. Thirty-one candidates competed for eight appointments: twenty-seven were reported qualified; four retired from the examination.

	Marks.		Marks.
H. H. R. Charles ...	2,495	G. Duncan... ..	2,245
J. P. Barry ...	2,452	A. V. Anderson ...	2,020
R. W. S. Lyons... ..	2,385	E. W. Reilly	1,945
W. A. Sykes	2,325	J. Scott	1,900

THE PARIS WEEKLY RETURN.

THE number of deaths for the eighth week of 1882, terminating February 23, was 1355 (703 males and 652 females), and among these there were from typhoid fever 32, small-pox 14, measles 25, scarlatina 3, pertussis 6, diphtheria and croup 63, dysentery 2, erysipelas 9, and puerperal infections 5. There were also 63 deaths from tubercular and acute meningitis, 202 from phthisis, 59 from acute bronchitis, 152 from pneumonia, 81 from infantile athrepsia (33 of the infants having been wholly or partially suckled), 117 from diseases of the cerebro-spinal system, and 41 violent deaths (33 males and 8 females). The number of deaths is in excess of the mean mortality of the last four weeks, but is somewhat below the mortality of the seventh week. While deaths from small-pox have decreased from 21 to 14, those from diphtheria have increased from 51 to 63. Typhoid fever has descended from 35 to 32; while the admissions for this disease to the hospitals has declined from 79 to 55. The births for the week amounted to 1243, viz., 649 males (477 legitimate and 172 illegitimate) and 594 females (444 legitimate and 150 illegitimate): 93 infants were born dead or died within twenty-four hours, viz., 54 males (35 legitimate and 19 illegitimate) and 39 females (26 legitimate and 13 illegitimate).

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE following is a brief outline of the President's address, which we were unable to insert last week:—He commenced by alluding to the evidence of the increasing prosperity of the Society which the report afforded, and said that nothing, in his view, could be more gratifying to a retiring President than being able to speak in such terms to the Fellows, for no institution could be considered effete which could point to so large an addition to its roll as that which had occurred during the past year. He had, however, to record a large number of deaths among both the senior and junior Fellows, among those who had left their mark on the world's history, and others who had quietly and unobtrusively done their duty towards their fellow-men. The names of the deceased Fellows, of whom the President gave many interesting notices and details, were—Mr. Hammett Hailey, of Newport Pagnell; Dr. Francis R. Philp, late Physician to St. Luke's Hospital; Mr. T. Heckstall Smith, of St. Mary Cray; Dr. Randle Wilbraham Falconer, of Bath; Mr. Wm. Donald Napier; Surgeon-Major Fitzgerald; Mr. George Leighton Wood, of Bath; Mr. James Luke; Dr. Julius Charles W. Heyn; Dr. Archibald Billing; Mr. Frederick Symonds, of Oxford; Dr. Andrew Wood Baird; Mr. George Macilwain; and Mr. George Samuel Jenks. The three Hon. Fellows whose loss the Society had to deplore were—Dr. Nikolaus Pirogoff, Professor of Surgery at the Medico-Chirurgical Academy of St. Petersburg; Dr. Theodor Schwann, Professor at the Royal University of Liège; and Sir Robert Christison, Bart., M.D., of Edinburgh. In concluding his remarks, the President said that in retiring from the duties of office at so early a date he had been influenced

by one consideration, which he felt to be for the best interests of the Society: there were many names on the list of Fellows who ought at one time or other to represent this Society as its President, who would probably be excluded by mere seniority, but who, had their turn come a little sooner, would probably have welcomed the distinction, and thrown themselves heartily into the work. In reply to some recent criticisms on the condition of the Society, the President remarked that this Society was founded on principles which are too well known to need vindication. "If," said he, "all the sparkling novelties which glitter in the sunshine of ephemeral notoriety are carried elsewhere, it is because we all desire that our *Transactions* should maintain a high standard of excellence." He referred to the question of amalgamation of the leading societies into one comprehensive association, which had been noticed in his predecessor's address, and again mentioned at intervals in the medical journals. The President concluded by again thanking the meeting for the honour which had been done him by his election to the Presidency, and hoping the Royal Medical and Chirurgical Society would still flourish as one of the great centres for the diffusion of scientific truth.

FAILURES WITH REGARD TO ADULTERATION.

THE real lesson taught by the recent failure of the prosecution instituted by the sanitary authorities at Birkenhead for alleged adulteration of coffee with chicory is—not, as some persons imagine, the uncertainty or imperfection of the means at our command for the detection of such frauds, but rather—the insufficiency of chemical analysis to decide, without the aid of the microscope, questions which belong rather to histology. The microscope is the proper guide in these cases, the appearances presented by chicory being unmistakable and easy of recognition to those that know them. Nearly thirty years ago, Dr. Hassall maintained that every organic adulteration could be detected by the microscope alone, and that whatever aid chemical analysis might afford, its proper sphere was limited to the exposure of inorganic, or at most of definite chemical bodies, as metallic oxides or salts and certain colouring matters.

BARBADOES.

AT the eleventh hour a change has been made in the appointment of Principal Medical Officer at Barbadoes. It will be remembered that Deputy Surgeon-General Holton, lately Principal Medical Officer at Woolwich, had been placed under orders for embarkation to Barbadoes: and so completely was the arrangement acknowledged, that a farewell entertainment previous to embarkation had been given to this officer by his friends at Woolwich. In consequence, however, of a technical question having been raised, as to whether Deputy Surgeon-General Holton, or Deputy Surgeon-General Moffatt, Principal Medical Officer of the Dublin District, had relatively enjoyed the longer tenure of a home appointment, Deputy Surgeon-General Moffatt has been placed under orders for Barbadoes, and has been relieved of his duties in the Dublin district by Deputy Surgeon-General Holton. Such a sudden and disagreeable transfer from home to West Indian service renders it not improbable that an early retirement may be applied for by Deputy Surgeon-General Moffatt, in which case Deputy Surgeon-General Holton again becomes the next on the list for Barbadoes. Should that gentleman not feel inclined to accept the extra risk and discomforts of a West Indian station at which, by recent accounts, yellow fever is still rife at several points, it is just possible that there may be some little unanticipated acceleration of promotion among Brigade Surgeons.

THE NIGHT MEDICAL SERVICE AT NEW YORK.

THE report of the Night Medical Service, submitted to the Board of Health, shows that during the sixteen months of its existence (September 1, 1880, to January 1, 1882) 573 calls have been made, these having been distributed among 132 physicians out of the 450 whose names appear on the roll. The majority of cases have been very urgent, comprising 57 of croup, 28 pneumonia, 16 pleurisy, 55 deliveries, 15 suicides, etc. Of all these calls only nineteen were paid for, 554 remaining to be paid for by the public; still, only \$1662 has been required for the payment of the doctors and of incidental expenses. Dr. Ewing, the Superintendent, has taken great pains in investigating whether payments were possible, and is sure that very few who could have afforded it have escaped—the great majority of the calls having come from the poorer classes.

THE MEDICAL SOCIETY OF LONDON.

At a general meeting of this Society held on Monday, March 6, the following officers and Council were elected for the ensuing year:—*President*: Francis Mason. *Vice-Presidents*: Richard Quain, M.D., F.R.S.; Robert Brudenell Carter; J. Hughlings-Jackson, M.D., F.R.S.; J. Cawood Wordsworth. *Treasurer*: Alfred Wiltshire, M.D. *Librarian*: William Henry Allchin, M.D. *Honorary Secretaries*: Edmund Owen; Isambard Owen, M.D. *Secretary for Foreign Correspondence*: Sir William Mac Cormac. *Council*: Henry Francis Baker; R. S. Fancourt Barnes, M.D.; Samuel Benton; William Henry Broadbent, M.D.; Sidney Coupland, M.D.; John Hamilton Craigie; Henry Radcliffe Crocker, M.D.; Thomas Stretch Dowse, M.D.; John Henry Drew; Arthur Edward Durham; Frederick James Gant; Heneage Gibbes; David Henry Goodsall; Alfred Pearce Gould; F. De Havilland Hall, M.D.; William Miller Ord, M.D.; Walter Pye; Thomas Gilbert-Smith, M.D.; William Frederick Teevan; C. Theodore Williams, M.D.

ENTERIC FEVER AT NATAL.

We are informed by our correspondents that enteric fever prevails to a large extent among the troops stationed throughout Natal. In one statement the number of cases is said to have been three hundred and of deaths thirty-six. It appears to be the general opinion of the medical officers that the outbreak is attributable to the contamination of the sources of water-supply by the many parties of troops and their native followers and transport animals during the recent movements throughout the country.

THE ZOOLOGICAL SOCIETY OF LONDON v. FLOWER AND OTHERS.

We own that up to a certain point we sympathise not a little with the desire that our great elephant Jumbo should not be lost to the Zoological Gardens and England. He has adorned the Gardens and served the Society well for some sixteen years, having been a great popular favourite; and it is pleasant and comforting to our pride to know that we have among our retainers in London the biggest elephant living in a state of captivity, except one said to be owned by some Indian prince. Still, these feelings do not carry us away to the extent of convincing us that we care more for Jumbo, and know better what is good for him, and for the public so far as he is concerned, than do the President (the distinguished and popular Conservator of the Museum of the Royal College of Surgeons) and the other officers of the Zoological Society. We have not, therefore, in any degree been in sympathy with the Fellows of the Society who, assuming to speak in the name of the Society itself, have

moved the Chancery Division of the High Court of Justice to restrain the President and Council from selling or parting with Jumbo. The case of the plaintiffs was a singularly weak one, and their motion has been refused with costs. If Jumbo does not somehow defeat all the wiles and efforts of Mr. Barnum, he will depart for or be deported to the United States, where he will certainly be fully well cared for, if only on account of his money-value; and as the only alternatives appear to be confinement in England in some prodigiously strong stable, with perhaps the addition at times of chains and low diet, or death, we cannot see that such a fate as being cared for in America has about it anything very lamentable.

THE METROPOLITAN ASYLUMS BOARD.

THE Metropolitan Asylums Board held their usual fortnightly meeting on Saturday, the 4th inst., when, amongst other business brought forward, a letter was read from the Local Government Board, transmitting a report made by Dr. Bridges, their inspector, on the Darenth Asylum. Dr. Bridges had visited the Asylum on February 21, and reported that the proportion of helpless children was somewhat larger than it had been at the opening of the Asylum. In consequence of this increase a larger nursing staff was required, but he had no reason to suppose that the staff of officers was too large. The boys' infirmary was too crowded, the ward having had at the time of his visit twenty-seven beds in it, whereas it should not have contained more than twenty beds, even if there had been a day-room attached to it. The atmosphere of the ward was, consequently, distinctly offensive. Children had been admitted at too youthful an age, many of them being less than three years old. He thought it was most undesirable that children should be admitted under the age of five years. Much good work was going on in the institution; but he thought that the individual progress made by each child in the schoolroom ought to come rather more closely under the supervision of the medical attendant than seemed to be the case. The returns of the fever patients in the several hospitals belonging to the Managers showed a decrease of forty-six in the total number remaining under treatment. The number of small-pox patients treated during the fortnight under notice was 439, or a decrease of twenty-eight upon the total for the previous period.

THE "UNION MÉDICALE."

THE company of proprietors to which this well-known journal belongs, at their recent annual meeting accepted the resignation of its chief editor, Dr. Amédée Latour, who, after having conducted the *Union Médicale* with combined vigour, ability, and urbanity during the thirty-five years of its existence, is obliged to retire on account of ill-health. His amusing and *spirituel* "*feuilletons*," signed by his *nom de plume* "*Le Docteur Simplicite*," which have appeared weekly during all this period, will be greatly missed, although of late they have lost some of their former originality and vigour. Prof. Gustave Richelot has been appointed to the post vacated by Dr. Latour.

THE EXCISION OF THE CANCEROUS UTERUS.

STATISTICS as to operations, compiled from the practice of many different persons, represent, not the possible results, but what may be called the average result only, because they include operations done by men of very different knowledge, skill, and experience. They tell us what has been done, but we cannot judge from them what may be done, nor always what ought to be done. The results obtained by one surgeon of experience are of much greater value for the guidance of others. Professor Schroeder, of

Berlin, has recently published in the *Zeitschrift für Geburtshilfe und Gynäkologie* the results obtained by him from the partial and complete excision of the cancerous uterus. The first group of cases which he gives comprises those of removal of the body of the uterus, the cervix being left. He has done this five times—three times for carcinoma, twice for sarcoma. Four recovered, one died from septicæmia. In one, a case of carcinoma, four months after the operation there was no sign of relapse. In another, a case of sarcoma, five months after the operation, the disease had recurred. The subsequent history of the other two is not given. The next group is of cases of *Freund's operation*, of which Dr. Schroeder gives eight cases, six of which were operated on by himself, one by Dr. Veit, and one by Professor Freund. Of the eight, three recovered, five died. Of the three recoveries, one had relapsed eleven months afterwards, one died six months afterwards from recurrence of the disease; the other, fourteen months after the operation, was as yet without relapse. Dr. Schroeder then gives his experience of the *supra-vaginal excision of the whole cervix*; i.e., dissecting off upwards the mucous membrane, connective tissue and peritoneum, and then cutting through the cervix high up. Of this proceeding he gives thirty-seven cases, with four deaths. In one, the disease was not completely removed. Of the remaining thirty-two cases, successful so far as recovery from the operation was concerned, in fourteen recurrence took place: in three within two months, in three within three months, in three within six months, in three others within seven, eight, and nine months respectively, in the other two the date of recurrence is not given. Seven are reported as continuing well, having been watched, in two cases two months only, in the remaining five cases three, four, five, six, and seven months respectively. The subsequent course of the remaining eleven cases is not stated. The last operation for uterine cancer of which the results are given is the *total extirpation of the uterus through the vagina*. This Professor Schroeder has performed eight times, with only one death, which took place from internal hæmorrhage, the result of a laceration of the broad ligament. The successful cases were at the time Professor Schroeder wrote too recent for him to make any statement as to the frequency of relapse. So far as these statistics go, the latter operation would seem the most promising. But it is one difficult of performance, in which immediate success must depend largely upon the manipulative dexterity and experience of the person who performs it; miscellaneous statistics cannot show what results may be obtained by an exceptionally skilful and careful operator.

GESTATION OF THE ELEPHANT.—The birth of a young elephant at Bridgeport, being the second instance only on record of such an occurrence in captivity, has induced the *Boston Med. Journal*, February 9, to quote some passages from the account given by Prof. Chapman of the other birth, which took place in Philadelphia in 1880. He says:—"What I had learned from travellers in the East, and from the case referred to by Prof. Owen (in his '*Anatomy of Vertebrates*,' vol. iii., page 742), the time being in that instance 593 days, together with Aristotle giving nearly two years, led me to indicate that about March 1 would be the time at which the birth of the elephant might be looked for. It was born on March 9, exactly twenty months and twenty days after the last copulation, or twenty-one months and fifteen days reckoning from the first one. The fixing the period of gestation at 630 to 656 days is another interesting illustration of modern investigation confirming the statements made by that most profound thinker and careful observer, Aristotle." The latest elephantine baby is stated to have weighed 146 lbs. at birth, and the period of gestation was shorter by several weeks than in the case reported by Prof. Chapman. In his case the young elephant weighed 213 lbs.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

At an extraordinary meeting of the Royal College of Physicians, held on Thursday, February 23, Dr. B. W. Richardson informed the President and Fellows that he had recently visited the church at Hempstead, and had inspected the vault which contains the remains of Dr. William Harvey. The tower of the church had very lately suddenly fallen, but Harvey's coffin had fortunately not been injured. It was, however, so decayed and so exposed that the rain found ready access to the interior, and he felt sure that the College would desire that something should be done to insure the preservation of the remains of their illustrious Fellow and benefactor. It was resolved that a committee of five should be appointed, with the President and the Senior Censor, to consider what steps should be taken to insure the preservation of Harvey's remains, and to report to the College. The Committee appointed were—Sir Risdon Bennett, Dr. Acland, Dr. Quain, Dr. Richardson, and Dr. Stewart.

It was resolved that a copy of "The Roll of the Royal College of Physicians" be presented to the library of such universities as the Library Committee may consider desirable.

A complete and revised edition of the By-laws and Regulations of the College was submitted to the Fellows for consideration and approval. A new and revised edition of these By-laws and Regulations has long been much needed, only one authoritative official copy of them, with the alterations and additions made during the last twenty years, being in existence. Some of the regulations made have a permanent character, and are now incorporated with the by-laws; and the rest, excepting those relating to the Licentiates, instead of being placed, as before, in a separate part of the book, are printed in immediate local relation with the by-laws to which they severally refer; and the by-laws, instead of being numbered consecutively in each chapter, are now numbered consecutively throughout. The following are the principal alterations proposed to the Fellows:—1. The examiners are made re-eligible during four years, instead of three, there being four examiners on each subject of examination. 2. The standing Council and Solicitor of the College, instead of being appointed by the President, shall in future be nominated by the President and elected by the Fellows. 3. It is proposed, with regard to the examination for the Membership of the College, that in future the possession of an Arts degree of a university of the United Kingdom, of India, or of a British colony, or proof of having passed equivalent examinations, should be accepted as sufficient proof of a good general education; but that any candidate not having obtained such Arts degree should be required to satisfy the Censors' Board by examination that he has a knowledge of Latin and Greek, or of Latin and one of the modern European languages. 4. Every candidate for Membership who has not a degree in Medicine approved by the Censors' Board, or who is not specially exempted by the College as being over forty years of age, is to be required to pass the examinations required for the licence of the College, in order to secure that every Member henceforth shall have been examined on Surgery and Midwifery as well as Medicine. 5. By-law 132 is altered so as to express clearly that students who commence their professional studies after March 25, 1882, shall not be admitted to the Third or Final Examination till the expiration of two years after they have passed both the First and Second Examinations. 6. It is recommended that the subject of Therapeutics be added to those comprised in the Final Examination in lieu of Morbid Anatomy. Two resolutions which have been passed by the College, and which, although not having the force of a by-law or regulation, it is highly desirable and important should be loyally observed, are printed after the By-laws, "On the Duties and Conduct of Fellows, Members, and Licentiates." The first of these resolutions refers to the assumption of the title of Doctor by any Fellow, Member, or Licentiate of the College who is not a graduate in Medicine of a university; and the other calls upon the Fellows, Members, and Licentiates of the College to discountenance all members of the profession who assume or accept designations implying the adoption of special modes of treatment. Exception was

taken by many of the Fellows to the proposed alteration of the by-law relating to candidates for the membership. The College had hitherto required that though a candidate should produce evidence that he had obtained a degree in Arts of a recognised university of the United Kingdom, India, or of a British colony, yet the Censors' Board should examine him as to his knowledge of the Latin language; and by the proposed by-law all power of examination and all responsibility was to be taken from the Censors, except in case of candidates neither having a degree in Arts, nor having "passed examinations equivalent to those required for a degree in Arts." After considerable debate the discussion on the by-law was adjourned. It was resumed at a meeting of the College held on Tuesday, March 7, when, finally, the following amendment was proposed and accepted, and, on being put as a substantive motion, was carried:—"Every candidate for the Membership shall satisfy the Censors' Board, by examination or otherwise, of the sufficiency of his general education, with the view of maintaining the honour and dignity of the College. The entire by-laws and regulations, as amended, were then approved for the first time.

At the same meeting of the College an address to the Queen on her recent escape from assassination was voted unanimously. The President was requested to convey to Sir George Burrows the sympathy of the College with him in his affliction by the death of his wife. And the College accepted, with thanks, Dr. Waller Lewis's offer of a portrait in oil of Dr. Caius, copied from a picture in Caius College, Cambridge.

FROM ABROAD.

THE ANTIPYRETIC TREATMENT OF TYPHOID FEVER.

UNDER the above title Prof. Austin Flint gives (in the first number of the new series of the *Medical News*), in a clinical lecture, an account of his treatment, during the session 1881-82, of fifteen cases of carefully observed typhoid fever, in which the external application of cold water was the chief agent employed. He sums up the results of the study of these cases under the following headings:—

1. *The Different Modes and General Rules for the Application of Cold Water.*—In a few cases the cold bath was employed, the patient being placed in a bathing-tub, in water of a temperature of 80° Fahr., which was gradually reduced, by means of ice, to about 65°. This, on account of the inconveniences attending it, was soon discontinued. The sponge-bath was often found notably effectual in reducing the temperature, the whole body being exposed to the air and sponged with cold water steadily for a considerable time. The wet sheet, however, is more effective. The body is wrapped in this, and sprinkled with water from a watering-pot at intervals of a few minutes. The patient need not be removed from the bed if this be protected by a sufficiently large india-rubber cloth. The cot known as "Kibbes' Cot" is to be preferred, but an ordinary cot-bedstead answers very well. This mode of refrigeration is much to be preferred to that by the bath-tub, and in most of the cases it and the sponge-bath were employed at different times during the progress of the disease. The general rule was to resort to one of these modes whenever the axillary temperature exceeded 103°, and to continue it until this was reduced to at least 102°—the temperature, during the employment of the cold, to be taken either in the mouth or rectum. If the pulse became feeble, the respiration disturbed, or the lips livid, the measure was at once discontinued. Alcoholics were often given during the application of cold, which in many instances was continued for several consecutive hours.

2. *The Antipyretic Effects obtained, the Time required, the Duration of the Effects, and the Repetitions* are to be illustrated by tables, soon to be published. From these it will be found that the repetitions of the cold during the course of the disease varied notably in number. The lowest number (excluding the 4 fatal cases) was 3, the sponge-bath having been applied once, and the wet sheet twice in this case; and in the next lowest 4 sponge-baths were given. The highest number was 51, the ice-bath having been employed 5 times, and the sponge-bath 46 times in this case. In the next highest

the sponge-bath was applied 18 times. Notable differences were also observed in the length of time required to produce the antipyretic effects; the shortest periods required varied from 20 to 30 minutes, and the longest from 10 to 20 hours, with every variety between these two extremes. This variation was observed not only in different cases, but at different times in the same case. There are evidently no known laws regulating the time required, and no judgment can be formed beforehand, the experience of one day being no guide for succeeding days. The duration of the antipyretic effect, when produced, was still more variable. In one case the consecutive durations were 10 days, 1 hour, 48 hours, and 24 hours; and in another they were 2½, 13, 3, 20, and 5 hours. After a reduction of temperature has been effected, the previous experience, even in the same case, furnishes little ground for predicting the length of time during which the temperature will remain reduced. In several instances a decline took place after the discontinuance of the cold; but, as far as these cases go, this was the exception to the rule. In no instance could any immediate harm be attributed to the employment of cold by any of the methods; and, as a rule, the reduction of temperature was accompanied by improvement in other symptoms. Patients sometimes complained of discomfort, but this probably arose from the reluctance to be disturbed rather than from any unpleasant effects attributable to the cold. Oftener they expressed a sense of comfort during its employment. There were 4 deaths in the 15 cases, or rather in 17 (for 2 were so treated subsequently), which is about the average mortality of the disease. In the cases which recovered, their duration was accurately observed in 9, and the mean duration found to be 17½ days, so that the disease cannot be said to have been rendered less fatal or of shorter duration by the antipyretic treatment. In none of the 4 fatal cases was there any ground for supposing that the antipyretic measures had any agency in the fatal termination.

3. *The Use of Quinia as an Antipyretic.*—In several instances sulphate of quinia was given during the employment of cold, but its agency was probably not considerable, as the reduction effected by the two agents combined was not greater or more rapid than when cold alone was employed. In a few instances quinia (in doses of ten to thirty grains) was given for its antipyretic effect, without being conjoined with cold. In some of these the temperature was reduced, and in others augmented.

4. *The Use of Alcoholics.*—These were administered to meet indications relating to the circulation, but in some cases none were given. The quantity was regulated by the frequency and fullness of the pulse, and diminished intensity of the first sound of the heart as heard over the apex. Whisky was the form generally used.

5. *The Diet.*—The chief article of diet during the course of the disease was milk. From one to two quarts were given daily, lime-water being added.

6. *Medicinal Treatment, exclusive of Quinia.*—In some cases no drugs whatever were given, and those which were given, exclusive of quinia, had reference to the palliation of certain symptoms. Digitalis was given in some instances for its tonic effects upon the heart, and ammonia as a cardiac stimulant. Opium in small doses was given sometimes for diarrhoea.

"From the study of these cases it may be concluded:—

1. That by the employment of cold water externally in cases of typhoid fever the temperature of the body may, after a variable time, be reduced to 102° or lower. 2. After a period varying much in different cases, and also at different times in the same case, the temperature, as a rule, again rises as high as, or higher than, before the reduction. 3. Repeating the employment of cold as often as the axillary temperature exceeds 103°. The number of repetitions required in different cases is extremely variable. 4. The sponge-bath and wet sheet with sprinkling may be employed, to the exclusion of the bath-tub. 5. These modes of employing cold water may be continued sufficiently long for the reduction of the temperature to 102° or lower, and repeated as often as may be required, without risk of any immediate injury; and the study of these cases furnishes no grounds for supposing that a liability to complications or accidents is thereby increased. 6. Reduction of temperature by these modes, as often as it rises (in the axilla) above 103°, improves the condition of the patient. The cases now studied do not afford proof either that the fatality of typhoid fever or its

duration is thereby diminished. The study of these cases, however, renders it possible that this proof would be afforded by a larger collection of cases. 7. The results of the analysis of these cases, although not sustaining the statements of Liebermeister and others respecting the controlling influence of the employment of cold externally in cases of typhoid fever, yet not only show this method of antipyretic treatment to be safe, but afford encouragement to employ it with the expectation of diminishing the severity of the disease and its danger to life."

ADMINISTRATION OF BELLADONNA TO CHILDREN.

Dr. Jules Simon, in a lecture delivered at the Hôpital des Enfants-Malades (*Gaz. des Hop.*, January 5 and 10), observes that belladonna is a medicine that is often employed with success in children, who in general bear it very well, just as adults for the most part tolerate it badly. The doses which he recommends are the result of the almost daily use of the drug, either in his hospital or private practice. As examples of its efficacy, he alludes to its use in four cases, one of them occurring as far back as 1871, so that the employment of belladonna is no new thing with him. This case occurred in a boy three years and a half old, the subject of intense whooping-cough, to whom he gave, on March 7, thirty drops of the tincture of belladonna to be taken in the twenty-four hours. On the 8th he ordered forty drops, and next day sixty, always in the same space of time. This last dose was continued daily until the 19th, not only without any accident, but with great improvement in the cough. In two other cases, in boys four and three years old respectively, the dose given varied from fifty to sixty drops in the twenty-four hours; and in a girl thirteen years of age, with bad paroxysms of the cough, beginning with ten drops per diem, he gradually increased the dose to 120, without the slightest accident arising.

The powder and extract of belladonna are two preparations that may be very well associated so as to make very small pills, each containing a centigramme of extract and one of powder; and these pills are found very useful in combating the tendency to constipation in chlorosis. The dose of the tincture may be graduated as follows:—From two to three years of age, five to ten drops; three years, ten to twenty drops; and above three years, thirty to forty drops per diem—always, however, at this last age commencing with ten drops. The dose should in all cases be divided into two portions. Below the age of two the tincture is given only quite exceptionally, and then at a year old in doses of five drops per diem. Of the syrup the daily dose is one or two teaspoonfuls (*i.e.*, five to ten grammes) for a child two years old, and two, three, or even four teaspoonfuls for one of three years. To the adult are generally given two tablespoonfuls, or about thirty grammes. When the neutral sulphate of atropia is employed, half a milligramme per diem should be given to a child two years old, gradually increasing the daily dose to two milligrammes. Belladonna may also be employed externally, as in arthritis and coxalgia, when a liniment may be formed of four parts of extract of belladonna and six of extract of henbane with *q.s.* of oil of henbane. Sometimes also the extract of belladonna is added to mercurial ointment; and an ointment composed of neutral sulphate of atropia twenty to thirty centigrammes and benzoated lard thirty grammes is very useful in relieving or even removing muscular pains in certain cases. "Belladonna is, then, a very active and in general well-tolerated remedy; and of all the preparations we have referred to, the tincture in medium doses of ten drops for a child two or three years old is the most employed, as also the syrup in doses of one or two teaspoonfuls for a child of the same age. I much prefer these two preparations to the neutral sulphate of atropia."

Turning to its physiological properties and therapeutical indications, belladonna may be described as an irritant substance to the parts upon which it is deposited. Taken internally, it induces thirst, dryness of the throat, with bitterness, and a certain acidity. Sometimes it gives rise to a semi-paralysis of the pharynx, and sometimes even to a kind of dysphagia. In poisonous doses it gives rise to nausea and vomiting, like opium itself. But while the action of this last on the intestinal canal is characterised by constipation, belladonna, on the contrary, produces hypersecretion from the mucous membrane of the canal, and slight painless contractions—that is, diarrhoea. Belladonna has a sedative

action on the circulation, producing in a therapeutical dose a diminution of the pulse and calorification; while in a poisonous dose it gives rise to febrile accidents and a notable elevation of temperature. Preparations of belladonna produce on the skin almost a scarlatiniform eruption of uniform redness. Their action on the respiration is to diminish the secretion of the respiratory mucous membrane, the rapidity of respiration, and the play of the thorax, diminishing also the sensibility of the nerves. But when given in large doses, at the same time that these induce vomiting and fever they increase the movements of the thorax. Transpiration is not increased by belladonna, which again in this differs from opium; and it is the same with the urine, which is increased in quantity. It is a nervine *par excellence*, exciting the central nervous system. In a somewhat large dose it produces cephalalgia; in a stronger dose, vertigo, intoxication, subdelirium, with great loquacity; and in a poisonous dose the delirium becomes more intense, and even furious. Opium is the opposite of this, depressing the nervous system. It acts on the pupil by "decongestion" and dilating it—again the opposite of opium. On this ground it is supposed to render the brain anæmic, while opium seems rather to produce its congestion. Finally, in a therapeutical dose it diminishes the susceptibility of the nerves of sensibility, and in a poisonous dose it gives rise to the phenomena of tetanism. To sum up: the principal action of belladonna is to produce diarrhoea, to diminish calorification, to increase the renal secretion, to maintain the nervous system aroused, while rendering the central nervous system anæmic.

As to the diseases in which belladonna is indicated, Dr. Simon states that in simple acute laryngitis, in stridulous laryngitis, in intense laryngitis with spasms, raucous cough, etc., he prescribes a mixture of equal parts of the tincture of the roots of aconite and belladonna, giving ten drops per diem to children two or three years of age. In spasmodic and paroxysmal bronchitis, in bronchial adenopathy, in whooping-cough, and in influenza, he also orders belladonna in combination with aconite. If the child is nervous and very excitable, he associates with the syrup of belladonna (ten grammes) syrup of codein (ten grammes) and eight or ten drops of tincture of aconite, obtaining thus the benefit of both opium and belladonna, their antagonism not being so complete as to prevent their advantageous association in some forms of disease, especially such as are attended with respiratory spasm. Belladonna is also of service in emphysema, in asthma, and in suffocative paroxysms. On the other hand, its employment is absolutely proscribed in pneumonia and broncho-pneumonia. In affections of the digestive organs, especially those met with in nervous little girls, already almost hysterical, with their intellect developed beyond their age, and who are already little actresses, who have anæsthesia of the skin, complain of severe pains without obvious cause, and who suffer from gastralgia, dyspepsia, and sometimes vomiting—in such patients, after trying laudanum, blisters, douches, and ice, he gives belladonna, in spite of the cerebral irritation which exists, in doses of a teaspoonful of equal parts of syrup of belladonna and syrup of codein. When children are growing up and suffer from constipation, which accompanies abdominal neuralgia, he gives before meals a pill consisting of a centigramme of powder and one of extract of belladonna. In tenesmus, ointments combined with belladonna generally succeed, and they are also of use in appropriate cases of nocturnal enuresis. In young girls of thirteen to fifteen, in whom the establishment of menstruation is difficult and is accompanied by erratic pains, a liniment composed of four grammes of the extract of belladonna, six of the extract of henbane, and thirty of the oil of henbane may be applied to the hypogastrium, and then covered with a cataplasm. The pains are by this relieved without the ill effects produced by opium enemata on the menstrual process. Belladonna, formerly much employed in epilepsy, has of late been superseded by the bromides; but in some cases in which these last have been found to fail, advantage has been derived from giving for a fortnight one or two milligrammes of powder of the neutral sulphate of atropia, and following this up for another fortnight with strychnia. In zona and in facial neuralgia of rheumatic origin belladonna may be employed for the relief of the severe pains. In affections of the eye it is of use in diminishing the contraction of the pupil, as also in catarrhal

or purulent conjunctivitis, especially when followed up by quinine. It is an error to regard it as a preservative from scarlatina.

"Belladonna, then, is a means which may be very usefully employed in the affections of the respiratory organs already indicated, in diseases of the digestive canal (when neither enteritis nor diarrhoea exist), in affections of the nervous system, in zona, in facial neuralgia, and in diseases of the eye."

GENERAL CORRESPONDENCE.

THE AMALGAMATION OF THE SOCIETIES.

LETTER FROM MR. C. HAWKINS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Would you allow me to correct a statement made by your reporter of what took place at the annual meeting of the Royal Medical and Chirurgical Society? I am reported to have said that I took part in the proceedings of the Society "something like half a century ago." As I was not a Member of the College of Surgeons fifty years ago, I could not have been a Fellow of the Society. What I stated was that in the year 1861 I moved the following resolution (on April 5):—"That it is the opinion of this meeting that it would tend to the advancement of medical science were the Royal Medical and Chirurgical, the Pathological, the Epidemiological, and the Obstetric Societies united under one head, and these different branches of medical science carried out in corresponding sections of the society." This was carried by a majority of *fifteen*. The arguments for and against the proposition were fully reported in the medical journals of that time. As to whether, *now*, such an amalgamation is possible or even desirable, I will not presume to offer an opinion. I am, &c., CHARLES HAWKINS.

27, Savile-row, Burlington-gardens, W.

[We should have thought that the word "half" was so obviously a misprint for "a quarter"—the term which, we believe, Mr. Hawkins used—that we should not have noticed it had not Mr. Hawkins done so. The rest is, as Mr. Hawkins well knows, highly controversial matter.—*Ed. Med. Times and Gaz.*]

IS THE YEW POISONOUS?

LETTER FROM DR. B. NICHOLSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Might I recommend this question to any medical student about to seek a subject for a thesis, or to any young toxicologist desirous of clearing up a doubtful and interesting point? Having lately been investigating the question, what was Hamlet's "cursed Hebenon," and come to the conclusion that it was the yew, I have been greatly struck with the opposite opinions held on this point. In classical times the yew was held to furnish one of the most deadly poisons, as may be seen by reference to Dioscorides and Pliny. Cæsar narrates how a Gallic chief committed suicide by drinking yew-juice, and Virgil and Suetonius also speak of its poisonous qualities. The mediævals in this, as in many other matters of natural history, chiefly followed Pliny, but some among them said that the leaves were only poisonous to the ruminants. An Englishman was also quoted as an authority for the berries being innocuous.

At the present day there is also a diversity of opinion. My friend Mr. Furnivall (a name sufficiently known in literary circles) prints these words:—"I have eaten the viscous flesh of some hundreds of yew-berries in different autumns, and so have my wife and boy. We always have a feast on 'em when we see 'em." On the other hand, in "Christison on Poisons," 1845, p. 915, we find a case shortly detailed, where a young child died suddenly—too suddenly to allow of his being seen by a medical man—a few hours after eating them; while after death livid spots were found on his skin. Other instances might, I believe, be quoted, and some agriculturists affirm that the leaves are poisonous to cattle.

What is wanted, therefore, is a careful investigation into

these supposedly poisonous qualities of the different parts of the yew tree, with, if all or any parts be found poisonous, a more accurate noting of the symptoms that they produce, and of the manner in which they produce death.

I am, &c.,

BRINSLEY NICHOLSON, M.D.

[What would Dr. Nicholson say to such a case as the following? A young unmarried woman in the family-way was desirous of getting rid of her unborn child. For this she had been recommended an infusion of yew-leaves, which, as far as could be made out, she had used. She was taken with violent symptoms of acute irritant poisoning. She died, and all the signs of acute gastritis and peritonitis were found. If we mistake not, many similar cases are recorded, but chiefly under the head of Abortives, among which the *Taxus baccata* has or had a high reputation.—*Ed. Med. Times and Gaz.*]

UNFERMENTED WINES.

LETTER FROM DR. N. KERR.

[To the Editor of the Medical Times and Gazette.]

SIR,—I do not know anything of the Christians whom Mr. Dixon accuses of being better than Christ, and, as a medical practitioner and a student of science, I care nothing for theological disputation. But I had the great honour a few months ago of proving, in a lecture (since published as a book by the National Temperance Publication Depot) delivered in the Chapter House of St. Paul's Cathedral to the Church Homiletical Society, of which the Archbishop of Canterbury is President, that unintoxicating wines can exist and have always existed; that they were in common use by the ancients; that these drinks have always been called "wine"; and that there is no difficulty in preserving such wine, which indeed improves with age.

I am, &c., NORMAN KERR, M.D.

42, Grove-road, Regent's-park, N.W., March 4.

PROFESSOR PASTEUR'S PREVENTIVE INOCULATIONS OF CHARBON.—The Prussian Minister of Agriculture, the *Deutsche Med. Woch.* (February 11) states, has appointed an influential scientific committee to superintend and report upon a series of inoculations to be performed by one of Pasteur's assistants. This gentleman then proceeds to Russia for the same purpose, and on his return to Saxon Prussia, where the experiments are to be made, will perform a second series of inoculations. Besides some celebrated veterinary professors, Prof. Virchow is expected to take part in the inquiry; but regret has been expressed that Prof. Koch, the able critic of Pasteur, has not been nominated.

OVERCROWDING OF THE FRENCH HOSPITALS.—At this time of the year this occurs as a matter of course, but its amount is ever on the increase, and now persists for the entire year. It is by hundreds that litters or supplementary beds may be counted in several of the hospitals. The litters sometimes are wanting, and we have seen at the Necker mattresses placed at the feet of occupied beds, and forming with the truckle-beds a third row extending the whole length of the wards—so that the physicians are obliged to kneel down in order to auscult their patients. What must be the hygienic state of these wards under these circumstances? In spite of all this, patients crowd to the hospitals, and only an insufficient proportion can be admitted. The true cause of this permanent overcrowding is the prolonged retention of chronic cases, whose discharge becomes more and more difficult owing to the engorged state of the establishments originally intended for them. These poor people, after temporary improvement, fall into their habitual state again, and occupy beds for months, their evacuation into the *hospices* taking place with excessive slowness. This state of things cannot always go on, and it must one day be acknowledged that the hospital accommodation is not equal to the demands of an increasing population. The resources at the disposal of the Assistance Publique do not suffice; and a parliamentary inquiry as to the necessities to be supplied will have to be instituted, when doubtless there will be no want of projects and proposals.—*Gazette Hebdom.*, March 3.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 24.

JOSEPH LISTER, D.C.L., F.R.C.S., F.R.S., President,
in the Chair.

ANEURISM OF THE ASCENDING AORTA.

DR. COUPLAND read the report of the committee appointed at the last meeting of the Society, from which it appeared that the case was one of sacculated aneurism, with some regurgitation through the aortic orifice.

SWALLOWING AN EAR OF RYEGRASS.

MR. GODLEE read the notes of a case occurring in the practice of Dr. Rudyard, of Watford, in which a child, aged two years, had swallowed an ear of ryegrass, which had made its exit through a small opening in the back on the left side, between the sixth and seventh ribs, three inches from the spine. The grass was shown at the meeting. The patient had suffered in the meantime from spasmodic cough, but as the grass was supposed to have passed by the bowels, the two facts were not connected by the mother. The interval of time between swallowing and the extraction of the piece of grass was altogether forty-three days. Mr. Godlee thought that the grass had probably entered the œsophagus, and not the trachea, and the cough depended upon some little pleurisy. Reference was also made to a case, the notes of which were supplied by Mr. R. W. Parker, of a child who swallowed a piece of grass, which made its emergence through an abscess which was set up in the left side, having a distinct faecal odour. The analogy between these cases and those of needle-swallowing was pointed out, and a case of the latter was referred to, in which a large number had been found by Mr. Godlee post-mortem in various parts of the body, but exciting little or no inflammation.

MR. GOLDING-BIRD related the case of a girl, eight years old, who swallowed an ear of ryegrass, which was discharged, about a year after being swallowed, through an abscess which formed under the left breast. The girl had then recovered.

CASE OF ACUTE PERFORATIVE PNEUMOTHORAX, TERMINATING IN COMPLETE RECOVERY.

DR. GEORGE JOHNSON read a paper on a case of acute perforative pneumothorax, terminating in complete recovery. A schoolboy, aged fifteen, ran in a paper chase about twenty miles, and was so fatigued that he fell down exhausted. The two following days he was quite well, but on November 5, after running upstairs, he was suddenly seized with pain in the left side, urgent dyspnoea, and great prostration. He was sent to bed, and in four or five hours the distressing symptoms had ceased, but on the following day Mr. Wharton, of Gosport, found all the physical signs of pneumothorax. On November 14 his father took him to his home at Woolwich, where, on the 15th, he was seen by Dr. Johnson in consultation with Surgeon-Major Godwin. He was in bed, but declared himself quite well. Pulse 60, respirations 24, temperature 97. The left side of the chest was nearly motionless, and hyper-resonant everywhere except in the interscapular region, where it was slightly duller than at the corresponding point on the right side. Over this space there was a feeble respiratory murmur, but elsewhere over the whole left side there was distinct amphoric blowing, with occasional metallic tinkling, and amphoric echo of the voice and cough. There was no evidence of liquid in the pleura; no dulness at the base, nor splashing succussion-sound. The heart was felt and heard distinctly beating to the right of the sternum. With rest in bed and simple diet the physical signs gradually changed. On November 27 Dr. Godwin reported more movement on the left side; cessation of amphoric blowing and metallic tinkling; some respiratory murmur on the left of the spine; heart's impulse to left of sternum; general health excellent. On December 23, Drs. Godwin and Stevenson jointly found vesicular murmur over the whole left side, and the heart in its normal position. On January 4 he was brought to Dr. Johnson, who found that the only difference between

the two sides of the chest was a doubtful flattening and diminished respiratory movement in the left subclavian region. He has since gone back to school, and Mr. Wharton writes that, "so far as he can determine, he has perfectly recovered of his pneumothorax." In explanation of the perforated pleura, it is stated that two years ago he had a chronic cough, and it is suggested that, as a result of some structural change in the apex of the left lung, the pleural surfaces had become adherent, and that the adhesions were stretched and torn by the violent exertion, so as to cause a rent in the texture of the pleura. Then, as there was no purulent or other morbid secretion which, by escaping into the cavity of the pleura, would excite inflammation and suppuration, the ruptured pleura was soon repaired, the air was gradually absorbed, the lung again expanded, and the heart resumed its normal position. Reference was made to a case published by Dr. Stephen Mackenzie (*Lancet*, vol. ii. 1871, page 259). A man, aged fifty, had sudden pneumothorax, resulting, as was supposed, from the rupture of an emphysematous air-vesicle. The air was drawn off by an aspirator, and the patient made a rapid recovery. Three cases of recovery from simple pneumothorax have also been recorded by Dr. Wilks (*British Medical Journal*, vol. ii. 1874, page 770). In none of these three cases was any operation performed.

DR. DOUGLAS POWELL thought the termination was fatal in these cases because they so often occurred in advanced stages of phthisis. When pneumothorax occurred in the earlier stages, it often distinctly retarded the advance of the disease; and the occurrence of effusion on the chest, the result of pneumothorax following phthisis, had often distinctly arrested the phthisis on that side.

DR. F. TAYLOR mentioned a case similar to Dr. Johnson's. A young man had slight pleurisy, with symptoms of hydro-pneumothorax on the left side. The symptoms improved, and the area which had been too resonant came to have the ordinary resonance of lung-tissue. He was perfectly healthy before the attack, as far as could be known. Could acute pneumonia have produced the pneumothorax? It was not stated in the text-books to be capable of doing so.

MR. PEARCE GOULD spoke of a case of pneumothorax which happened in a boy who had been run over. He had no broken rib. The pleura was tapped; air escaped with a loud noise, followed by a few drops of blood. The lung expanded again, and in a week the thorax had quite recovered. (*Lancet*, "Mirror," 1881, vol. ii.)

MR. HOWARD MARSH mentioned two cases of traumatic pneumothorax. In one case, that of a man run over by some heavy conveyance, who was almost moribund from collapse of the lung and pneumothorax, a hydrocele-trocar was passed into the thorax between the ribs; a puff of air then came out, and the man was relieved, but eventually died, and the lung was then found to be quite torn from the trachea. In a second case, that of a woman who fell on alighting from an omnibus, and died with pneumothorax, only rupture of the pleura was found, without fracture of a rib. A case of the kind had been also mentioned by Dr. A. S. Taylor, in which pneumothorax had been produced by severe direct violence.

DR. TYSON (Folkestone) mentioned a case of chronic ulcer of the leg, with pyæmia, and pneumothorax of the right lung.

DR. COUPLAND considered that case might be one of abscess of the lung rupturing into the pleura. He mentioned also the case of a young bank-clerk who had overtaxed himself in walking to the City, and who the same day was found to be suffering from pneumothorax of the right lung. In a fortnight or three weeks the lung re-expanded. There were, meanwhile, some symptoms of slight effusion into the chest. A young woman had hydro-pneumothorax, which was tapped, and she died. The condition was in that case probably due to early tubercular ulceration. How many of such cases recovered?

THE PRESIDENT thought the case suggestive of the trouble often seen from fracture of the rib, in which the pneumothorax might easily be fatal. The mere entrance of air into the pleura was not of itself very serious, unless the pneumothorax became great and bulged the other lung. As an experiment to exemplify this over-distension to a surgical class, a lung from a butcher's shop might be taken, its pleura wounded, and a syringe fitted into the bronchus. If the piston were then forced down, air escaped by the pleural wound; but, upon the drawing-up of the piston, air did not

return. The surface of the lung, instead, was sucked inwards; for the wound of the pleura was a valve-wound, letting air pass out, but not in. By ordinary inspiratory efforts in cases of pneumothorax, air was forced into the pleura.

Dr. G. JOHNSON thought the amphoric blowing was due to the passage of air from the lung into the pleura. If the aperture became closed, the amphoric blowing ceased. In a case published by him in the *British Medical Journal*, in which the amphoric blowing ceased, he had said the aperture would be found covered with lymph, as was discovered to be actually the case after death. In another case, in which there was an aperture externally, the amphoric blowing ceased when the opening was covered. His opinion was that, if pneumothorax occurred in a case of phthisis, it rather hastened the case, in consequence of the suppuration set up in the chest. In the conditions of pneumothorax he thought there must be some air passing out of the pleura, otherwise the distension of the chest would become enormous. In pneumothorax there was a difference of atmospheric pressure on the two sides of the chest; and the displacement of the mediastinum to the other side was an exact measure of the difference of this pressure.

CASE OF EYEBALL TENSION.

Mr. W. SPENCER WATSON read the sequel to a case of eyeball tension. The right eye having been sclerotomised five years ago, the result was reported to the Society in 1880 as being perfectly satisfactory. Premonitory symptoms were then showing themselves, and in June, 1881, Mr. Watson operated by sclerotomy on the left eye also. The result was not so good as in the right eye, but it was tolerably good. The use of eserine before and after the operation had been very advantageous. There was a slight contraction of the palmar fascia in this patient, and Mr. Watson having observed the same condition in other glaucomatous cases, was inclined to regard the concurrence of the two conditions as throwing some light on the pathology of glaucoma, and as indicating that an atrophic hardening of the sclerotic coat of the same kind as the shrinking of the palmar fascia might be the initial stage of the disorder. Further proof, however, of this was necessary before the theory could be accepted as proved.

Mr. G. LAWSON had tried sclerotomy instead of iridectomy; but in the former there was so often an entanglement of the iris, whilst the results of sclerotomy were in no respects better than those of iridectomy. In acute glaucoma he knew of no operation in surgery more successful than iridectomy. In chronic glaucoma he thought neither sclerotomy nor iridectomy was of much use.

Mr. McHARDY was glad to find the opinion he had entertained of the value of iridectomy in cases of acute glaucoma thus substantiated. In chronic glaucoma he thought less risk was run by submitting the patient to sclerotomy than to iridectomy. He mentioned the case of a young man aged twenty, with a tendency to cold feet and hands, with chronic glaucoma of both eyes, nearly total blindness of the right eye, and much limited field of vision of the left eye. The former eye was treated with a considerable iridectomy; there was no anterior chamber, and four hours afterwards hæmorrhage ensued, and the eye was enucleated. Mr. Bowman decided to advise iridectomy instead of sclerotomy in the case of the left eye also. Iridectomy was consequently performed, and the patient went on well for nine days; but the glaucoma returned, the eye bulged, and had been lost.

The PRESIDENT said Mr. Watson's case was a successful one of sclerotomy; and such success was due to the relief of tension. The fluid once let out did not return. Fluid *in situ* in the body kept up nervous excitement; the fluid being let out, the nervous excitement abated.

Mr. WATSON had not brought forward the case as one illustrating the advantages of sclerotomy over iridectomy, but to show that the advantages of sclerotomy were in some cases persistent—in one instance for six years, in another for two years. He thought the reduction of tension in such cases was most useful. Sclerotomy, too, was much less likely to be followed by intra-ocular hæmorrhage than was iridectomy. The aqueous humour escaped very slowly, and the pressure was therefore slowly taken off the parts at the back of the eye. In the second case of Mr. McHardy, he was surprised that sclerotomy was not tried rather than iridectomy, which had been so unsuccessful in the case of the first eye.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, FEBRUARY 17.

Dr. TRIPE, President, in the Chair.

THE minutes of the last meeting having been read and confirmed, it was resolved that the Council be empowered to consider the provisions of the Municipal Bill, as drafted by the Government, when printed; as also of the Bill for the Control of Infectious Diseases in England and Scotland. A discussion ensued as to the right of "the local authority" to revise the reports of the medical officers of health. It was decided that such action would be a breach of the Public Health Act, because the medical officer of health reports direct to the Local Government Board. The medical officer may refuse to sign a report that has been altered contrary to his judgment. The reports must be printed, because all applicants may obtain copies at the regulation price of 2d. per copy.

SOME OF THE CONDITIONS WHICH MODIFY OR INCREASE THE INFECTIVE CHARACTER OF SCARLATINA.

Dr. CARPENTER read a paper, entitled "Some of the Conditions which Modify or Increase the Infective Character of Scarlatina," of which we subjoin a summary. The difficulty which frequently arises in satisfactorily accounting for the continuance of scarlatina in a given house or block of buildings has at times to be overcome by supposing that it has been re-introduced by means of a post letter, or a book, or by some other material which has been traced to, or only supposed to have been in contact with, a preceding case, or to the continuance of infection upon a person who has recently recovered from the disease. These cases are so numerous that some writers have not hesitated to insist upon a quarantine of some eight or ten weeks, and even four months, before a child who has recently suffered from the disease should be allowed to mix with his fellows again. The result of this action has been to entail very heavy loss upon families who have complied with the instruction, and in many cases serious injury has resulted to the health of the sufferer who has been thus ostracised, and but too often deprived of the pure air and friendly intercourse with his fellows which are so necessary to the rapid re-establishment of good health. It has also given rise to an apprehension almost amounting to panic among some people whenever a friend's child has been re-introduced a short time after recovery from the effects of scarlatina. "Rigorous and universal isolation" is no doubt absolutely required whenever and wherever the disease occurs in its early stages, but to continue this for many weeks is highly prejudicial to the temporal interests of the unfortunate sufferers and their friends, and is especially so in regard to schools which have become the arena in which the disease has appeared. I have for many years acted upon the opposite path, restricting the isolation to a fortnight only, and in some cases limiting it to one week after the departure of the fever; and in no case have I had any reason to regret the course which I have adopted. There was a large school in Croydon in which scarlatina appeared over and over again. The unused cesspool had become the recipient of the washing from a neighbouring slaughter-house, and hot and cold water had found a way into the cesspool, and further examination showed that it recurred at least once a week, displacing the aerial contents of the cesspool into the closets and urinals of the boys, and explaining the cause for complaints, which, at the time they were made, seemed to be unaccountable. The cesspool was filled up, the slaughter-house sewer was unstopped, and made to discharge its sewage in the right direction, viz., into the sewer. The house has been occupied as a school since 1862, and there has not been any outbreak of scarlatina among the occupants from that time to this. It must be evident that the cesspool in the school yard was intimately associated with the re-appearance of scarlatina, that it contained some material which continued its vitality, being fed with water containing blood products, which material was displaced by the introduction of fluid every week. There is a large private school at Blackheath, where several outbreaks of scarlatina appeared. A close examination revealed the fact that the doors in the lobby acted as suckers on a piston-rod, and drew air backwards or forwards out of or into the class-rooms towards or

from the bath-room and latrines. Separated from the boys' closets, and leading out of the latrines, was a water-closet, which was locked up; it had been provided for the tutors, but was seldom used. An examination of this water-closet gave a most perceptible evidence of sewer smell, especially when a large volume of water had been discharged down the latrines. It was quite clear that whenever the latrines were flushed, or the bath emptied, some part of the sewer became a closed receiver, and emptied foul air from the main sewer into the latrines by this water-closet, and from thence into the class-room. We have only now to provide that some of the factors of scarlatina shall be in the sewer, for them to find their way into the class-room in the manner indicated. When the disease appeared in the school it was very prevalent in the district lower down the hill. Since 1874, the defective drainage having been rectified, no succession of cases have appeared at all in the school, and the one imported case has not been followed by any general outbreak. The third outbreak to which Dr. Carpenter alluded as an illustration of the agency of defective drains in the persistence of an epidemic, was that of the Bowater Estate, at Blackheath, which is covered with small houses, and is thickly peopled. At the highest part of the estate are built the elementary schools belonging to the parish of St. John's. A serious epidemic of scarlatina made itself felt in this school in the early part of September, 1880, which led to the school being closed. The mortality in this epidemic was excessive. The mortality of scarlatina is caused more by the nature of the blood which receives the prime factor than by the character of the factor itself. The bodies of the children affected were prone to take on the disease, and to give it an unusual intensity. This proneness arose from the insanitary surroundings among which they were placed. Of the seventy-five cases which arose in this district, seventy-three attended the school; whilst a great many children who did not attend the school, and many of whom lived in the same houses, and even mixed with the affected children, did not take on the complaint. There was no power to isolate, and scarcely any to disinfect; yet the disease was limited in its incidence to those families who attended the school in question. We have to ask why the disease did not cease to extend soon after the school had been closed: for it is generally held that the stage of incubation in scarlatina does not exceed a week? or, if it continued to spread among the residents by personal contact, why its ravages were absolutely restricted to children who had attended the school—especially when we reflect upon the insanitary surroundings of the district itself? Inquiry showed that the incidence of the disease was greatest among the infants. There were a few cases among the girls, but only one or two of the younger boys suffered at all from it. Water, milk, and other articles were all examined, only to be put aside as impossible vehicles; and one was gradually led up to the school-house for a solution. The closets for the infants and girls were in the centre of the block of buildings which constitutes the school premises (they ventilated into the infant-schoolroom, and also, though less completely, into the girls' department), whilst that for the boys was quite detached, and outside. When the floor of the infant-schoolroom was removed, the distinctive sewage odour which came from the subsoil beneath was very manifest. There was no ventilating opening of any kind upon the public sewer from its junction with the outfall sewer to its termination a short distance above and beyond the school-house. The highest point upon this mile and a half of closed receiver was at the school-house. The large portion of the cases occurred after the school was closed; but in spite of the fact of the children being mixed up together—there being several instances of children of different families living in the same house—no child who did not go to the school was affected; and of those who did go, the boys altogether escaped. The constitutions of these children had imbibed a matter from the sewer-air which allowed the scarlatina germs to fructify. There was no possible way by which these poor people could be soaked with sewer-air except in the infant school-house and its appurtenances. The fourth illustration was that of the large pauper establishment for children at Anerley, containing 900 children from three to fifteen years of age. The disease was imported into that school in September, 1880. In spite of every precaution, and the most energetic action on the part of the officials, the disease constantly reappeared. The energetic measures taken by the medical officers and

the superintendent were such as rendered the continuance of the disease from personal infection almost a matter of impossibility. Foul air did pass from the public sewer into the school sewer whenever the wind was in the right direction. Whilst the living-rooms and the dormitories were properly protected by an efficient sewer ventilation, the branches which crossed the playgrounds to the lavatories and urinals, to some of the water-closets, and to the laundries and baths, were not so protected. It was the custom to flush the sewer by means of the great bath of 60,000 gallons of water every week. This flushing, however, flooded the lower sewer and prevented sewage coming down from the lines above, but did not flush the major portion of the system. A heading back took place; and whilst this heading back did occur, the hot water from the laundries and the hot baths was discharged into these closed receivers, with the inevitable result that the warm water would develop the scarlatina poison more distinctly, whilst it also caused an expansion of the contents of the sewers, and led these matters to discharge themselves at the urinals, and also at the gullies in the playgrounds, around which it was usual for the little children to congregate. With the insertion of ventilators there was an immediate cessation of cases, except such as were otherwise explainable; and the epidemic ceased altogether on May 14. The point of interest in this case was the mildness of the attacks as compared with those in the St. John's School at Blackheath. In the one case 14 deaths arose among 75 children, or 18·5 per cent.; in the other, 3 deaths out of 103, or scarcely more than 2·7 per cent. In the one case the children lived for some hours daily in an impure atmosphere, and were badly cared for at home; in the other the surroundings were quite healthy. What inference do I draw from these cases? It is that the causation of scarlatina more often arises from sewage emanations and sewage contaminated with the scarlatina germs than from personal contact; and whilst such contact can undoubtedly spread the disease, there is less danger to be apprehended from this cause, if isolation and disinfection be properly performed. I have been in the habit now for many years of thoroughly disinfecting my patients by proper baths and a ten days' quarantine, and not even waiting in every case until desquamation is complete before the patient has been allowed to mix with his fellows, provided there has been no ulceration or any discharging surface upon the skin. This has been done on very many occasions, and on no one occasion have I had cause to regret the course taken, though the individuals have sometimes been marked persons, and I should have heard most loudly if any mischief had arisen from my advice. It is far more important for the interests of the public that the excreta should be thoroughly disinfected, and the sewers properly cleansed, and ventilation provided, than for a continuous isolation of a case because the skin is a long time exfoliating. I wish, in conclusion, to point out the great dangers which do arise from the discharge of hot water and waste from steam-engines into sewers; and I cannot but think that many of those cases of scarlatina which so bother us as to their causation are due to an accidental inhalation of air from some open grating over a badly constructed sewer, or from some other decomposing animal matter which abounds on all sides, such as the unhealthy blood of vertebrate animals, than from personal contact. Of this I am certain, that those who have the atmosphere they breathe habitually contaminated by such exhalations are certain to suffer much more severely from the disease in question than those who are not exposed to any such influence, and that this fact will explain the reason why the disease is severe in one case and mild in another.

In the debate following the reading of the paper,

Dr. JACOB remarked that the recurrence of scarlet fever in a house is often traceable to defective drainage from the transit of impure air direct from the sewer. This often explained the obstinate recurrence of the disease. He had somewhat altered his views as to the communicability of the disease only by contagion.

Dr. KELLY thought we ought to inquire whether the parents have ever had the disease, as the children seem to some extent protected by the original transmission of the poison through the parental system. He referred to an instance of scarlet fever spreading six weeks after the rash had disappeared.

Mr. LOVETT alluded to the prevailing epidemic in Russell-square connected with the milk-supply.

Mr. MURPHY had found that rickety children suffered more

severely from scarlet fever than healthy children. There is a distinct relation between the virulence of an attack and the particular sanitary condition. Negative evidence is necessary before we conclude that the drainage is the only vehicle of communication seven or eight weeks after an attack. The disease had been conveyed to another person after five or six weeks. There is great difficulty in procuring sufficient isolation.

Dr. CHURCHILL, commenting upon the argument of Dr. Carpenter in regard to the diffusive character of steam, and the power of hot water for developing and dispersing the germs of contagion, remarked that it is not unlikely, taking into account the known spread of epidemic diarrhoea when the temperature of water is raised to a certain point, that, *ipso facto*, the germs of scarlet fever will receive a special potency and rapidity of development whensoever the temperature of a sewer is raised to "summer heat." To rectify such a condition, he suggested as the best remedy a dual system of drainage, so as to conduct the sewage in a separate channel—never to mix with steam or hot water. The main sewers being constructed specially of large area, for efficient manual cleansing, would by a slight modification allow of the construction of a U-shaped inner tube for house-drainage alone, and capable of being flushed by the storm water. This would do away with the complaint against the very bulky sewers that they are "elongated cesspools." In attributing to sewer-gas the blame of specific contagion, we must beware of our premises. The continued respiration of foul air means the deprivation of vital energy, and such conditions are well known as frequent factors for the development in depraved constitutions of disease-germs. For example, ringworm will often be cured by improved health and better sanitary arrangements.

Dr. TRIFE remarked that many have thought about sewer emanations having a marked effect upon the spread of disease where it was least expected. In a school at Hackney all the children escaped the disease except those who were in a room where the rain-water pipe outside communicated with a drain. No doubt houses at the top of a hill suffer most from the ascent of sewer-gas by shaft-action. It is important, too, to consider meteorological conditions. Oil of amber is a good and useful detective for the escape of sewer-gas.

Dr. CARPENTER, in his reply, said that if a quarantine arrangement of three months were enforced by law there would be great rebellion from the people generally. Some minor points of importance must not be neglected—such as syringing the ears, cutting the hair close, and skilful disinfection of room and clothing. With such precautions, a child may mix with others in ten days after the subsidence of the fever. He had no doubt that the loss of five children by the Archbishop of Canterbury was due to the existence of cesspools under the house. Borax-and-water and Condy's fluid were useful for bathing the skin and disinfecting the exfoliation. When the temperature is normal for forty-eight hours, then the fever may be accounted as "gone." No doubt the sewer atmosphere so degenerates the system as to make it more likely for the disease to spread. Children not exposed to such foul air do not take the disease so readily. He was struck with a remark by Dr. Buchanan, that the mortality from small-pox is a trifle compared with that from scarlet fever. No doubt in certain cases scarlet fever is spread by contact. He thought it quite possible, however, for it to arise *de novo*.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, FEBRUARY 1.

Dr. J. BASSETT in the Chair.

THE following gentlemen were elected members of the Society:—Mr. A. F. Hawkins, Dr. Holmes, Mr. W. R. Millican, Mr. A. Legge Roe.

Mr. BENNETT MAY showed two specimens of Knee-joint Disease, which had originated in acute necrosis of the head of the tibia.

Mr. A. O. HOLBECKE showed the Left Hemisphere of the Brain of a Child, aged eight years, exhibiting a large abscess-cavity from which about half a pint of most offensive pus had escaped. On making the post-mortem a small round

perforation in the petrous portion of the temporal bone was found, which communicated with the ear on the one hand, and with the abscess-cavity on the other. The dura mater was healthy. Thirteen weeks before death the child received a blow on the ear, and complained of much pain at the time; subsequently her health became impaired, and a discharge of pus from the left ear appeared, the pain in the head becoming relieved. Several times the discharge disappeared, the pain in the head being always simultaneously increased. There was no paralysis. Convulsions had occasionally occurred. She was rational and answered questions intelligently. Twelve hours before death the discharge from the ear ceased, and she at once became comatose and died.

Mr. A. O. HOLBECKE also showed the following Specimens, all taken from the same patient, aged sixty:—1. An ununited fracture of the humerus. 2. Two fractures in the femur, united firmly, but irregularly, and causing much shortening. 3. Two large deposits in the liver (together with microscopic specimens of the same prepared by Dr. Barling) which presented the character of carcinoma. 4. A calculus removed from the gall-bladder. 5. The right kidney studded throughout with calculi, the left kidney presenting well-marked granular degeneration. The fractures had occurred last June. Her left mamma had been removed nineteen years previously for scirrhus. Her father died of cancer.

Mr. JORDAN LLOYD showed a specimen of Central Necrosis of the First Phalanx of the Index-Finger, without suppuration, attended by the expansion of the whole bone into a cyst with very thin walls; the cartilage being healthy. In another case Mr. J. Lloyd would try to save the member by removing elliptical pieces from the bony shell before proceeding to amputation.

Mr. HUGH THOMAS showed the following specimens:—1. A Placenta, studded with deposits of calcareous degeneration, and having an abnormally short cord (only eight inches long), taken from a primipara aged twenty-two, in whom ante-partum hæmorrhage, followed in eight days by premature labour, occurred about the seventh month of pregnancy. The child was still-born, the cuticle peeling off. 2. A specimen of Scirrhus of the Rectum, taken from a man aged fifty-seven, in whom (after prolonged constipation) death occurred from peritonitis set up by a perforation of the gut having occurred just above the stricture, which was about an inch and a half from the anus. 3. A Uterine Fibroid expelled by a woman aged forty, the mother of several children, immediately after parturition.

Mr. LAWSON TAIT read a paper "On Death after Ovariectomy, due to previous Tapping." The author drew attention to the fact that amongst the last hundred ovariectomies (for cystoma) which he had performed there had been only three deaths. In all, the deaths had been due to the formation of a firm white clot, which started from the point of ligature of the pedicle, and slowly traversed the venous system till it reached the heart, death ensuing in from thirty to forty hours after operation. The symptoms which preceded death were swelling in the legs, rapid rise of pulse, and its disappearance from the extremities some time before death, breathlessness ending in suffocation and slight delirium. He had seen several such deaths, but not one in a patient who had not been previously tapped. His explanation was that repeated tappings deprive the blood of some element or elements included in the infinite variety of albuminous substances found in ovarian cysts, the deficiency of which predisposed to coagulation of the blood. The author thought that no case of ovarian tumour should be tapped till previous abdominal section had shown that it could not be removed. He believed that if this rule were followed the mortality might be reduced to less than 1 per cent. if cases were operated on early.

Mr. LAWSON TAIT also read a paper "On Two Cases of Hydatids of the Peritoneum successfully treated by Abdominal Section." In the first the operation was incomplete, because the hydatid had so matted the intestines together that the larger number could not be removed. All the cysts which could be reached were broken down, and a drainage-tube was inserted in the pelvis from above. The patient's symptoms previous to the operation were very severe, but they rapidly disappeared. The patient completely recovered, and the hydatid masses had entirely gone when she left the hospital on the twenty-fourth day after the operation. The second case was of a more simple kind, for the parasites

were contained in a cyst in the lower abdomen, which was completely emptied and drained through the wound. The patient made an easy, rapid, and complete recovery.

A discussion followed, in which Dr. Bassett, Mr. Jordan Lloyd, Dr. Carter, and Mr. Bennett May took part; and Mr. Tait replied.

Dr. SIMON read a paper "On the Treatment of Eczema."

A discussion followed, in which Dr. Bassett, Mr. Greene, Mr. Lawson Tait, Mr. Bennett May, Mr. Mann, Mr. Taylor, and Dr. Johnstone took part; and Dr. Simon replied. After which the meeting terminated.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 2:—

Atkinson, Thomas Reuel, West Park, Clifton, Bristol.
Key, David Thomas, The Oval, Brixton, S.W.
Prangley, Henry John, West Cowes, Isle of Wight.
Williams, Charles, Llangennech, Carmarthen.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Staff Surgeon Joshua Pasley Courtenay, to be Fleet Surgeon in Her Majesty's Fleet, with seniority of February 24, 1882; Surgeon Alexander Mitchell, M.D., to be Staff Surgeon in Her Majesty's Fleet, with seniority of the 1st inst.

BIRTHS.

ADAMS.—On March 3, at Barnes, Surrey, the wife of James Adams, M.D., of a daughter.
BLACKETT.—On March 5, at Wangford, Suffolk, the wife of Edward R. Blackett, M.D., of a son.
FIELD.—On March 3, the wife of George P. Field, M.R.C.S., of 31, Lower Seymour-street, Portman-square, of a daughter.
HARRAN.—On February 11, at Sealkote, Punjab, the wife of Surgeon James Harran, Army Medical Department, of a son.
HUNTER.—On March 7, at 21, Norfolk-crescent, Hyde Park, the wife of Surgeon-General Hunter, M.D., F.R.C.P., and Hon. Surgeon to the Queen, of a son.
KEMP.—On March 5, at 101, Jermyn-street, St. James's, the wife of John R. Kemp, L.R.C.P., M.R.C.S., of a son.
LUBBOCK.—On March 5, at 19, Grosvenor-street, the wife of Montagu Lubbock, M.D., of a son.
PEACEY.—On March 3, at 214, Lewisham High-road, S.E., the wife of William Peacey, M.B., of a daughter.
SMITH.—On February 28, at London-road, Croydon, the wife of W. H. M. Smith, L.R.C.P., of a daughter.
WHITE.—On February 27, at Malmesbury, Wilts, the wife of Edward Arthur White, M.D., of a son.

MARRIAGES.

JOYNT-HARDING.—On February 2, at Jamaica, Henry W. Joynt, Surgeon A.M.D., to Henrietta Emma, fourth daughter of the late Rev. Richard Harding.
MASON-JORDISON.—On February 28, Alfred Haynes Mason, L.R.C.P., son of Dr. Mason, F.R.G.S., of Finsbury-circus, to Mary Jane, daughter of the late Binks Jordison, M.R.C.S., of South Ockenden, Essex.
MOFFAT-ADIE.—On March 2, at Edinburgh, Robert Moffat, M.D., of Falkirk, to Martha, eldest daughter of the late James Gray, Esq., of Kalemouth, Roxburghshire, and widow of the late James Arther Adie, Esq., of Voe, Shetland.
PERCEVAL-LOUTTIT.—On March 2, at Greenwich, James Wilde Godfrey Perceval, Esq., to Jane Milne, eldest daughter of James Louttit, M.D., of Vanbrugh Park, Blackheath.
TURNER-TURNER.—On March 1, at Leytonstone, W. Pickett Turner, M.R.C.S., of Leytonstone, to Ellen C. Turner, youngest daughter of Henry Turner, Esq., late of Woodstock, Oxon.

DEATHS.

BALFOUR, GEORGE FREER HUME, son of John Balfour, Inspector-General of Hospitals, H.M. Indian Service (retired), The Turret, Leven, Fifeshire, at Torquay, on March 3, aged 20.
BURROWS, ELINOR, wife of Sir George Burrows, Bart., M.D., F.R.S., etc., at 18, Cavendish-square, W., on March 4.
CEELY, ELIZABETH PARKER, wife of James H. Ceely, F.R.C.S., at Aylesbury, on March 7, aged 69 years.
CROCKER, CHARLOTTE ELIZA, sister of Henry Radcliffe Crocker, M.D., of 23, Welbeck-street, W., at the Hôtel Quirinal, Rome, on February 28.
DENNE, WILLIAM, F.R.C.S., late Medical Superintendent, Three Counties Asylum, Arlesey, Beds, at Eastbourne, on March 3, aged 73.
GRIFFITH, REBECCA, widow of the late Robert Griffith, Esq., at the residence of her son, John Thomas Griffith, M.D., F.R.C.S., Talfourd House, Camberwell, on March 7, in her 88th year.
GUY, WILLIAM, son of Thomas Guy, M.D., F.R.C.P., Inspector-General of Army Hospitals (half-pay), at 8, Maison Dieu-road, Dover, Kent, on March 3, aged 29.
HALL, HONOR MARY, wife of John Hall, M.R.C.S., at Sydney House, Ha verstock Hill, on February 28, in her 49th year.

HENSLEY, MARY JANE VALPY, wife of Frederick John Hensley, M.D., at 10, Coleherne-road, South Kensington, on March 1, in the 56th year of her age.

HOUGHTON, LYDIA, wife of H. G. Houghton, M.D., at 6, Mount-street, Grosvenor-square, W., on March 3, aged 41.

STURROCK, DAVID RAMSAY, M.D., H.E.I.C.S., at Broughty Ferry, Dundee, on March 4.

WOOD, FRANCIS HENRY, M.R.C.S., late of New Romney, Kent, on board the *Highflyer*, off Mauritius, on November 11, 1881.

YEATES, GEORGE, M.D., at Walthamstow, Essex, on February 26.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BODMIN UNION, CORNWALL.—District Medical Officer. (*For particulars see Advertisement.*)

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Physician. Candidates must be graduates in medicine of one of the Universities recognised by the Medical Council of the United Kingdom, or Fellows or Members of the Royal College of Physicians of London; or Fellows or Licentiates of the King and Queen's College of Physicians in Ireland; or Fellows of the Royal College of Physicians, Edinburgh; but no candidate shall be eligible who practises, or is connected in partnership with anyone who practises, surgery, pharmacy, or midwifery. Applicants' names, with diplomas and testimonials, to be sent to the Secretary on or before March 29.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Vacancy in the Surgical Staff. Candidates' names, with qualifications and testimonials, to be sent to the Secretary on or before March 29.

GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Surgeon. (*For particulars see Advertisement.*)

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Obstetric Physician. (*For particulars see Advertisement.*)

KENT COUNTY LUNATIC ASYLUM, CHARTHAM DOWNS, NEAR CANTERBURY.—Assistant Medical Officer and Dispenser. Candidates must be duly registered according to the Medical Act. Applications, stating age, etc., with testimonials, to be sent to Allen Fielding, solicitor, Canterbury, Clerk to the Committee of Visitors, on or before March 21.

LONDON HOSPITAL MEDICAL COLLEGE, TURNER-STREET, MILE-END, E.—Assistant Demonstrator of Anatomy. (*For particulars see Advertisement.*)

WARWICK COUNTY LUNATIC ASYLUM.—Junior Assistant Medical Officer. (*For particulars see Advertisement.*)

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Easingwold Union.—Mr. Edward Buller Hicks has resigned the Easingwold District: area 13,630 acres; population 3187; salary £26 per annum.
Towcester Union.—Mr. A. P. Kingcombe has resigned the Blakesley District: area 11,025 acres; population 1881; salary £60 per annum.

APPOINTMENT.

Williton Union.—Edward Noot, M.R.C.S. Eng., L.R.C.P. Edin., to the Porlock District.

SANITARY ASSURANCE ASSOCIATION.—Dr. Farquharson, M.P., will preside at a meeting of this Association on Friday, March 10, at 7.30 p.m., when Mr. Henry Rutherford, barrister-at-law, will deliver an address on "Sanitary Assurance from a Householder's Point of View." A discussion will follow the address. Tickets of admission may be had on application to the Secretary, 5, Argyll-place, Regent-street, W.

THE EBERLE TESTIMONIAL.—Dr. Eberle (now of Thirsk), for the past seven years Principal of the Medical College, Easingwold, has been presented by the inhabitants with a massive black marble timepiece, beautifully decorated in the Egyptian style, and bearing on a silver tablet the following inscription:—"Presented to J. J. Eberle, physician, in recognition of the high esteem in which he was held during his residence in Easingwold."

A FIDDLE-STRING AS A BOUGIE.—Dr. Daniel, of Jackson, Miss., failing in a case of very tight stricture to get in the smallest ordinary bougie, used in the emergency a fiddle-string. This passed in readily, and, on being withdrawn in a few minutes, was found to have swollen to twice its previous size. A larger one was then passed, and allowed to remain in for fifteen minutes. On its withdrawal the urethra was sufficiently dilated to get in a No. 4, then a No. 6 bougie, and finally a flexible Nélaton's catheter threaded on a fiddle-string. A second case was equally satisfactory. Dr. Daniel claims for the fiddle-string (catgut) cheapness, simplicity, availability, harmlessness, strength, and rapid expansion.—*Louisville Med. News*, February 11.

COFFEE AS A DISINFECTANT.—Dr. Barbier, writing to the *Lyons Medical Journal*, observes that while coffee is a most excellent disinfectant, far from possessing the detestable and abiding odour of carbolic acid, it exhales a pleasant perfume. He first became acquainted with its antiseptic powers on an occasion in Algeria, when he was called upon on a fiercely hot day to perform an autopsy in a close room. The stench fairly drove him out, when one of the officials, calling for a plate of ground coffee, sprinkled it thoroughly over the corpse and the walls and floor of the room, with the effect of so entirely destroying the smell as to allow of the autopsy being performed without inconvenience. The same result followed other trials of the coffee under similar circumstances; and Dr. Barbier has also found it of great use in dressing old and foul ulcers, which were rapidly healed by it.—*Union Méd.*, February 28.

APPOINTMENTS FOR THE WEEK.

March 11. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Mr. W. Watkiss Lloyd, "The Iliad and Odyssey."

13. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
ROYAL INSTITUTION, 5 p.m. Mr. Maybridge, "On Animal Movements."
ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Edentata." Lecture VII.
MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. Francis Mason (President), Opening Address. Dr. Druitt, "On a Case of Marked Tetany in a Child" (living specimen). Mr. Reginald Harrison (of Liverpool), "On the Early Treatment of Prostatic Enlargement." Dr. Fancourt Barnes will exhibit a specimen of Stricture of the Rectum mistaken for Retroflexion of the Uterus.

14. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
ROYAL INSTITUTION, 3 p.m. Professor John G. McKendrick, "On the Mechanism of the Senses."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. Theodore Williams, "On the Influence of Albuminuria on the Temperature Course of Phthisis Pulmonalis, with an Account of its Pathology."

15. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. C. Theodore Williams.
ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Edentata." Lecture VIII.
ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Sir Joseph Fayrer, "On the Climate and Fevers of India." (1st Croonian Lecture.)
ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY (Council Meeting, 8 p.m.), 8½ p.m. Ordinary Meeting.

16. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.
ROYAL INSTITUTION, 5 p.m. Professor Tyndall, "On the Resemblances of Sound, Light, and Heat."
HARVEIAN SOCIETY, 9 p.m. Dr. Fitzpatrick, "On a Case of Puerperal Septicæmia." Mr. W. B. Owen, "A Retrospect of Fifty Years' Professional Experience."

17. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.
ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Edentata." Lecture IX.
ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Sir Joseph Fayrer, "On the Climate and Fevers of India." (2nd Croonian Lecture.)
ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Captain Abney, "On Infra-Red Rays of the Spectrum."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 4, 1882.

BIRTHS.

Births of Boys, 1291; Girls, 1298; Total, 2539.
Corrected weekly average in the 10 years 1872-81, 2714.1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	863	922	1790
Weekly average of the ten years 1872-81, } corrected to increased population ...	912.4	874.6	1787.0
Deaths of people aged 80 and upwards ...	...	...	79

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric(or Typhoid) Fever.	Simple continued Fever.	Diarrhoea,
West	668993	...	10	2	1	24	...	4	...	1
North	905677	1	4	5	3	36	1	4	1	2
Central	281793	...	1	...	3	10	...	2	...	2
East	692530	4	6	4	5	45	...	2	1	1
South	1265578	18	21	9	2	69	...	5	1	1
Total	3814571	23	42	20	14	184	1	17	3	7

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	29.155 in.
Mean temperature ... ..	...	...	...	...	...	44.3°
Highest point of thermometer ... ..	...	...	...	...	...	55.4°
Lowest point of thermometer ... ..	...	...	...	...	...	29.7°
Mean dew-point temperature ... ..	...	...	...	...	...	39.8°
General direction of wind ... ..	...	...	...	...	...	S.W.
Whole amount of rain in the week ... ..	...	...	...	...	...	0.79 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 4, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Mar. 4.	Deaths Registered during the week ending Mar. 4.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		Weekly Mean of Daily Mean Values.	In Inches.	In Centimetres.
London	3893272	2589	1790	24.0	55.4	29.7	37.9	3.28	0.79	2.01
Brighton	109595	67	71	33.8	53.5	31.6	44.8	7.12	0.78	1.98
Portsmouth	129916	81	51	20.5	...	...	...	...	...	...
Norwich	83821	66	38	22.3	...	...	...	...	...	...
Plymouth	74449	67	40	28.0	55.8	33.6	46.5	8.06	1.17	2.97
Bristol	210134	131	92	22.8	53.0	31.5	44.5	6.85	2.02	5.13
Wolverhampton ...	76756	61	37	25.2	52.3	27.5	41.6	5.34	1.94	4.93
Birmingham	403532	350	161	20.6	...	...	...	...	...	...
Leicester	126275	89	48	19.8	53.5	31.5	43.7	6.50	1.22	3.10
Nottingham	193573	145	116	31.3	55.0	29.9	43.8	6.56	1.39	3.53
Derby	83587	54	31	19.4	...	...	...	...	...	...
Birkenhead	86532	52	34	20.5	...	...	...	...	...	...
Liverpool	560377	388	317	29.5	...	...	...	...	...	...
Bolton	106767	66	49	23.9	50.5	32.0	40.3	4.61	2.43	6.17
Manchester	340211	232	187	28.7	...	...	...	...	...	...
Salford	184004	142	79	22.4	...	...	...	...	...	...
Oldham	115572	81	70	31.6	...	...	...	...	...	...
Blackburn	106460	81	78	33.2	...	...	...	...	...	...
Preston	97656	75	50	26.7	...	...	...	...	...	...
Huddersfield	83418	42	43	26.9	...	...	...	...	...	...
Halifax	74713	41	36	25.1	...	...	...	...	...	...
Bradford	188101	113	90	25.0	54.0	32.8	42.1	5.62	2.23	5.66
Leeds	315998	204	133	22.0	56.0	32.0	43.0	6.11	1.89	4.80
Sheffield	290516	228	128	23.0	53.0	30.0	42.3	5.73	1.85	4.70
Hull	158814	102	59	19.4	54.0	30.0	41.6	5.34	1.70	4.32
Sunderland	119065	83	52	22.8	62.0	33.0	42.4	5.78	0.99	2.51
Newcastle	147626	101	57	20.1	...	...	...	...	...	...
Cardiff	85724	68	34	20.5	...	...	...	...	...	...
For 28 towns	8457514	5799	3971	24.5	62.0	27.5	42.7	5.95	1.57	3.99
Edinburgh	232440	153	90	20.2	55.1	31.2	39.6	4.23	0.91	2.46
Glasgow	514048	241	242	24.6	53.0	31.5	41.7	5.39	0.66	1.68
Dublin	348293	194	234	35.1	53.8	34.5	43.9	6.61	1.79	4.55

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.16 in. The lowest reading was 28.66 in. on Wednesday, and the highest 29.54 in. at the end of the week.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

C. J. Egan, District Surgeon, King William's Town, South Africa.—Letter and enclosure received.

R. B., Shipley.—1. The result of the last Preliminary Examination of the Royal College of Surgeons—the last that will be held by the College—was published in the *Medical Times and Gazette* of October 1, 1881. The result of the last Matriculation Examination of the University of London was published in the number dated February 25, 1882. 2. No. 423, Strand, London; £1 12s. 6d. a year post-free. The *Pharmaceutical Journal* is published by Messrs. Churchill, 11, New Burlington-street, London; price 4d. weekly. 3. London; Trinity College, Dublin; Edinburgh.

M., St. George's Hospital.—At the trial of the Duchess of Kingston for bigamy before the House of Lords, Mr. (afterwards Sir) Cæsar Hawkins deposed that he had long known Her Grace, and at her request was present when the issue of the first marriage was born, but that he was not an accoucheur.

Dr. Davis.—The finest collection of medical portraits with which we are acquainted is in the possession of the Royal Medical and Chirurgical Society. It was formed principally by the late Mr. G. J. Squibb, of Orchard-street. When Mr. William Wadd died, it was resolved at a meeting of his friends to dispose of his fine collection by raffle of five guineas per share, the number of which was not to exceed 200. We think it was dispersed amongst different collectors, as the late Dr. Merriman, of the Royal College of Surgeons, and Mr. Stone, of that institution. The collection of the College is also very good, embracing the collection of the late Dr. Young, whose brother, Garter King-at-Arms, presented it to the College. The collection of Mr. Stone is rich in rare and curious autographs.

Children's Text-books on Temperance.—The School Board of Brading, Isle of Wight, has decided that the children of the schools of the Board shall be taught from Drs. Richardson and Ridge's text-books. Very well in its way, but any spare time left from School Board work would be better employed in teaching domestic work.

Beetroot Wine.—The French Council of Hygiene has appointed a commission to inquire into and report upon a new wine which is said to be made from common beetroot. The inventor of the process of fermentation by which it is obtained, claims that the wine is of agreeable quality, while he points out that beetroot can be cultivated in any soil and in any climate.

H. M., St. Thomas.—Certainly. All candidates for the diploma of membership of the Royal College of Surgeons must undergo an examination in medicine and midwifery.

Quarantine at Suez.—According to a deputation which waited on Lord Granville lately in respect to the quarantine orders issued by the Sanitary Authority in Port Said, there had not been known a single ship coming from India that had had any infectious disease on board, and therefore the quarantine orders were only imposed for private gain, and were an intolerable annoyance. His Lordship was urged to put pressure upon the Egyptian Government for the removal of the obnoxious order, when he said no effort on his part should be wanting to accomplish the object of the deputation, and he admitted the present state of things was intolerable.

Vivisection in Germany.—The Reichstag has refused to take any steps in regard to a petition for the abolition of "scientific torture of animals," presented to the Assembly from the societies established in different parts of the German Empire for the prevention of cruelty to animals.

A Canal-Boat Girl.—Mr. George Smith, of Coalville, publishes the simple but suggestive story of a boat-girl he recently overtook on the towing-path at Paddington Basin, who was tending a horse to prevent the animal from coming to a standstill. She was a girl "of ten winters"; was born down the small, unwholesome hatchway of the boat, which at that time was occupied by her father, mother, and four youngsters. A brother was drowned "in the Cut" last year, and a sister had died of fever some months ago in the "cabin" of the boat that was then following them. The dead girl was carried, an hour or two after her decease, by her mother through the public streets to the house of a relative.

A National Museum of Hygiene, Washington.—The Surgeon-General of the United States Navy calls attention to the establishment of this institution. It has been made the central depository of the American Public Health Association.

Aris.—The Bill which was brought into the House of Commons by Dr. Cameron, on the subject of Sunday drinking on board steamers, is the same in its provisions as the measure introduced last year. Its object is to put a stop to the practice of excise licences being granted to these steamers, and to require that, in all boats carrying passenger traffic, intoxicating drinks shall only be sold under hotel licences, which shall bring the supervision of the arrangements for the supply of refreshments under the regulation of the magistrates.

Septimus.—The Manchester Hospital Sunday collections paid into the bank up to the 3rd inst. amounted to £4843 12s. 6d., making, with the Hospital Saturday collection received up to the same date, £6897 4s. 8d.

"The British and American Medical Society of Paris."—A Society under this title has been formed in Paris. The object is to promote social intercourse and maintain good fellowship between British and American physicians. Membership is limited to British subjects and citizens of the United States of America legally entitled to practise as physicians in Paris, and actually doing so. A certain number of dinners are appointed to be held annually; the first took place on the 1st ult.

Reay.—There has been a diminution of the death-rate of the country generally. It has decreased from 29.8 to 26.4 per 1000, showing a fall of 3.4.

The Cabmen: Another Generous Gift.—A cabmen's shelter (the thirty-first in London) has just been opened in Northumberland-avenue. It is the free gift of Miss Carrington, who has borne its entire cost, and has dedicated it to the memory of her lately deceased brother.

Ronald.—The Patrick Stead Hospital, at Halesworth, erected out of the money (£27,000) left for the purpose by Mr. Patrick Stead, a native of the town, is now nearly completed.

A Spring-Water Supply.—The Bill of the London and South-Western Spring-Water Company has passed the Standing Orders Committee of the House of Commons. The only opponents were the water companies who were affected by the Bill; while petitions in favour of the measure were presented by most of the parishes proposed to be supplied by the new Company.

Resignation of a Coroner.—Mr. B. H. Thelwall, who has been Coroner for the Hundreds of Bromfield, Chirk, and Yale, in the county of Denbigh, for nearly thirty years, has intimated his intention of resigning his appointment. There are several candidates already in the field.

"Pulv. Jacobi."—Madame D'Arblay, speaking of Dr. James, says:—"I tried hard to find the residence of the admirable inventor of the fever powder, which has saved the lives of so many, but the ungrateful inhabitants knew nothing of him. The man who has lengthened life, whose skill in physic will be long remembered, to be forgotten at Lichfield! I felt indignant."

Baby-farming, Bristol.—In a case of baby-farming in the suburbs of Bristol, a man has been fined 21s. for keeping on his unregistered premises two infants under one year old for the purpose of reward. Two deaths of children had occurred in the house in a comparatively short time, but both received medical care, and the deaths were registered.

COMMUNICATIONS have been received from—
Messrs. ALLEN and HANBURY, London; THE SECRETARY OF THE COMMITTEE FOR PROTECTION OF THE LOWER THAMES FROM SEWERAGE; Mr. JOSEPH HADLEY, London; THE DIRECTORS OF THE ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND; Dr. GALABIN, London; Dr. WILLIAM ALEXANDER, Liverpool; Mr. O'FLANAGAN, Houghton-le-Spring; THE CLERK TO THE HASTINGS URBAN SANITARY AUTHORITY; THE EDITOR OF THE "BRITISH MEDICAL JOURNAL," London; THE SECRETARY OF THE SOCIETY OF TELEGRAPH ENGINEERS AND ELECTRICIANS; THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT; Dr. RIDLEY DALE, Sunderland; Mr. R. BURTON, Shipley; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN; Dr. NORMAN KERR, London; Dr. G. M. HUMPHRY, Cambridge; Dr. CHARLES HAWKINS, London; Dr. BRINSLEY NICHOLSON, London; Dr. COCKLE, London; Mr. W. E. PARKER, Lindfield, Sussex; Mr. J. CHATTO, London; Dr. J. W. MOORE, Dublin; Dr. WILLOUGHBY, London; Mr. J. T. W. BACOT, Seaton; THE SECRETARY OF THE NATIONAL HEALTH SOCIETY, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Dr. RUSSELL, Birmingham; THE SECRETARY OF THE ELECTRIC LIGHTING COMPANY, London; THE SECRETARY OF THE HARVEIAN SOCIETY, London; Dr. BRYAN WALLER, Edinburgh; Messrs. G. STREET and Co., London; Dr. FIBERLE, Thirsk; THE SECRETARY OF THE INTERNATIONAL MEDICAL ASSOCIATION, London; THE SECRETARY OF THE EDINBURGH MEDICAL MISSIONARY SOCIETY; Mr. J. SMITH, London; Mr. NOCK, Bloomsbury; THE SECRETARY OF THE SANITARY ASSURANCE ASSOCIATION, London; THE SECRETARY OF THE ARMY MEDICAL DEPARTMENT, London.

PERIODICALS AND NEWSPAPERS RECEIVED—
Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Philadelphia Medical Times—Archives Générales de Médecine—Edinburgh Medical Journal—Birmingham Medical Review—Revue Mensuelle de Laryngologie, etc.—Glasgow Medical Journal—Analyst—Zeitschrift für Diagnostik und Therapie—Practitioner—La Presse Médicale—Physician and Surgeon—Chicago Medical Review—Medical Bulletin—Le Concours Médical—Vaccination Inquirer—Richmond and Twickenham Times—L'Impartialité Médicale—Giornale Internazionale delle Scienze Mediche—Midland Medical Miscellany—Medical News—La Independencia Médica—Western Gazette, March 3.

BOOKS, ETC., RECEIVED—
Nitro-Glycerine in Angina Pectoris, by William Murrell, M.D., M.R.C.P.—Notes on Books—Report of the Delancey Fever Hospital for 1881—Report of the Tottenham Sanitary Association for 1881—Report on the Sanitary Condition of the Whitechapel District for the Quarter ended December 31, 1881—New Commercial Plants and Drugs, by Thomas Christy, F.L.S.—Annual Report of the Manchester and Salford Sanitary Association for 1881—On Concussion of the Spine, by John Eric Erichsen, F.R.S.

ORIGINAL LECTURES.

ABSTRACT OF
THE GULSTONIAN LECTURES
ON
PULMONARY CAVITIES: THEIR ORIGIN,
GROWTH, AND REPAIR.

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LECTURE I.

THE analytical method, which I believe to be indispensable in any investigation on phthisis, is equally required for a fruitful study of the destructive changes in the lung. Too little attention has hitherto been paid to the topography and to the anatomical relations of cavities. The lung has been regarded as an unit, and its excavation as a more or less constant quantity. I will not deny that the most persevering analysis has been carried into the depths of the pulmonary tissue; but too often the tube of the microscope appears to have obstructed the view of the coarser anatomy. My endeavour in these lectures will be to study the pulmonary lesions rather in the light which strikes the naked eye, and to attempt as it were their geography, appealing to the microscope in all matters of detail, but relying mainly on the practical data furnished by the unaided senses.

The tendency to a formation of permanent air-containing cavities is peculiar to the lung, and obviously connected with the special structure and the ventilating function of the organ. The photograph which I place before you illustrates the production of a cavity from a gunshot wound. The patient was shot seven years ago through the middle of the left clavicle, and bled profusely from some large vessel. The lung, which was also wounded, became the seat of an aërial fistula and of apex-excavation. Although of healthy descent, and originally strong, the patient is following the usual declivity of phthisis, showing how much depends upon the position of the cavity, and, within certain limits, how little upon its exact causation. In this case, at least, tubercle does not bear the original blame.

More commonly excavation, has its cause in disease. So various are the pathological conditions which may lead to its production, that it is impossible to attempt any detailed account of them. The typical vomica which will claim the greater share of our attention is special to phthisis. It bears the impress of chronic inflammation strikingly evidenced in the zone of tissue-condensation by which it is surrounded, and in the pseudo-capsule which defines its outline. This is, however, but one variety of phthisical cavity—not, we must admit, the most common. It differs widely from the excavations of acute phthisis, and scarcely less does it differ from the ordinary pneumonic softening. We are thus made conscious from the onset of the necessity for a preliminary classification of the varieties of phthisis if we would thoroughly appreciate the origin of excavation.

The great division between pneumonic and tubercular disease has not yet, to my belief, been superseded. In spite of the tendency of recent years to see in all phthisis the working of tubercle, a distinction is still upheld by some of the greatest authorities, who refuse to subscribe to the revived doctrine of Laennec that caseation is invariably due to a tubercular origin.

I.—Of these two large groups, let us first take the pneumonic, which, clinically speaking, probably comprises the majority of phthisical cases. Its chief sub-classes are—(1) alveolar catarrh and broncho-pneumonia; (2) catarrhal pneumonia; (3) caseous pneumonia. A glance at the annexed diagrams will show a general agreement between this classification and those of Buhl and of Virchow, the differences being mainly in the terms.

VOL. I. 1892. No. 1655.

Classification according to Buhl.

Superficial inflammation (in territory of pulmonary artery).	Fibrinous pneumonia.
	Catarrhal pneumonia following upon catarrhal bronchitis.
Deep inflammation (in territory of bronchial artery).	Peribronchitis.
	Parenchymatous or Desquamative pneumonia.
	1. Consecutive desquamative pneumonia (induced by general diseases).
	2. Genuine desquamative pneumonia.
	3. Caseous pneumonia.

Classification according to Virchow.

1. Genuine fibrinous pneumonia.
2. Catarrhal pneumonia (subdivision, broncho-pneumonia).
3. Caseous pneumonia (catarrhal and fibrinous pneumonia combined).

1. The affections included in my first sub-class do not require any special comment. They are distinguished from all others by the moderate extent of the inflammation, which usually terminates in recovery; and by the small proportion which the epithelial elements bear to the other cells filling the alveolus.

2. A radical difference, more obvious under the microscope than to the naked eye, exists between catarrhal pneumonia and the former group. Structurally, this is scarcely less marked than the difference between a transient cuticular desquamation and a dermatitis—the former implicating only the epithelial surface; the latter striking its worst blow at the vascular layers, wherefrom the reproduction of healthy epithelium depends. This peculiarity renders catarrhal pneumonia, in a local sense, insusceptible of recovery, and implies softening as its probable termination.

3. The distinction between catarrhal and caseous pneumonia is not alone one of intensity, but of kind. Whereas the morbid deposit in catarrhal pneumonia nearly exclusively consists of alveolar cells and of leucocytes, in caseous pneumonia it is largely made up of fibrin. In addition to this partly fibrinous character of the alveolar contents, it is common for fibrinous pneumonia to supervene independently upon the chronic inflammation; and the extent of the ultimate disorganisation will greatly depend upon the behaviour of this recent fibrin, which is sometimes reabsorbed, but more commonly is involved in the caseous destruction.

II.—Perhaps the most strictly defined of all varieties of phthisis is the tubercular. I am not alluding to acute primary miliary tuberculosis, but to those cases in which tubercle of tolerably pure type, occurring in groups, is present from an early date, and leads to the common symptoms and termination of phthisis. We find the bulk of the lung usually free from disease; the chest preserves a large size, and seldom reveals to auscultation the extent of the mischief; and the cavities for a long time are capable of slow development only, and often escape detection. With these anatomical features the etiology is in full harmony. The disease is very apt to attack those habitually exposed to irritating atmospheres, and the subjects of chronic or recurrent bronchial affections.

III.—By far the largest number of fatal cases are attributable to a mixed type of disease, including the pneumonic element, by the side of the tubercular. I cannot enter here into the arguments which render it probable that catarrhal pneumonia is the prime factor in the majority of these instances, and that tubercle is superadded as an outcome of the phthisis. According to the proportion and to the distribution of the two elements, varieties ensue, both in respect of the clinical phenomena and of the anatomical appearances, too numerous for description.

Holding fast by this rough nomenclature, we shall be better able to discuss the mode of origin of cavities. To whatever form phthisis may be due, excavation is invariably preceded by *softening*. The softening in phthisis is a purely chemical action, over which the living tissue has no control; but, like other chemical processes, it is mainly influenced by the “conditions of the experiment.”

Among the circumstances which most modify the march of phthisical destruction should be mentioned the varying density of the deposit and the degree of moisture within and around it. The term *caseation*, which has been rather loosely used in connexion with a variety of changes, should be restricted to the dry and dense products from which the moistening influence of the atmosphere and blood-irrigation are in a great measure excluded.

In pure caseous pneumonia, the desiccative changes are carried out to perfection, owing to the complete stoppage of the supply of air and blood; and the advent of excavation

may be long delayed. Not so in many cases of catarrhal pneumonia of a low type, in which imperfect aëration persists side by side with an inveterate oedema. Here molecular breaking-down occurs early, and partakes less of the nature of fatty degeneration than of a maceration, which is alike destructive of the deposit and of the tissue. The combination of an extensive catarrhal pneumonia occurring in separate foci, with severe oedema, commonly leads to what may be roughly termed a "dissecting excavation" of the lung. If the process be tolerably acute, and the softening rapid, the fibro-elastic framework of the lung is completely emptied of its parenchyma, and the lobular septa alone remain.

It is especially in these moister, least caseous, forms of catarrhal destruction that elastic tissue is most abundantly ejected. Even true caseation does not completely destroy elastic fibres; but they are so much comminuted (probably as a result of the caseation rather than of the original inflammation) that their recognition may become a matter of difficulty. Grancher, in his valuable article in the *Revue de Physiologie*, ascribes their fragmentation to a mechanical, rather than to a chemical, agency: the strength of elastic tissue lies in its suppleness; if stretched unfairly, and embedded in a hard and brittle mass, it loses its resisting power together with its pliancy. This fact is demonstrated by Grancher by means of paraffin-injections of the lung. The toughness natural to the pulmonary tissue is, under these circumstances, completely abolished, and the lung becomes capable of fracture. Exactly similar conditions are present in caseous pneumonia, which is distinguished by the stretching of the alveolar wall, and by the density of the infiltration.

These remarks will explain the true significance of a discovery of elastic fibres in the sputum; if present, they constitute proof positive of softening, but their absence does not furnish us with any negative evidence. With regard to fully formed cavities, I may anticipate further details, by stating that we do not habitually find any elastic sediments among their contents.

I propose, after these general observations, to enter upon a short description of the modes of excavation special to the leading varieties of phthisis.

Pulmonary cavities most commonly owe their existence to some form of catarrhal pneumonia. The ordinary type of the excavation is lobular. Even in larger cavities this lobular origin remains for a long time evidenced by the persistence of trabeculae. The softening, which begins at a bronchial termination, gradually proceeds through the consolidated lobule as far as its fibrous boundaries, or it may even extend beyond the latter. But, sooner or later, the excavating process is interrupted by tissue reaction, and a barrier is formed, which resists the further encroachment of the disease.

When the healthy tissue-reaction (to which is due the formation of the pseudo-capsules of cavities) is absent or imperfect, as in cases presenting less consolidation than oedema, the invariable result is a wide-spreading destruction. The same consequence follows even in the presence of moderately firm consolidation, should the oedema happen to be great. Of this we possess an instance in the catarrhal pneumonia of drunkards. But, more commonly, diffuse softening results from a variety of pneumonia which has never reached consolidation, but remains in a state of congestive oedema. This condition, it will be observed, is but one step removed from alveolar catarrh. In the latter, the slight accumulation of cells within the alveolus, and the moderate oedema of the alveolar wall, may completely disappear under treatment. But, if the oedema should become severe and inveterate, the power of epithelial proliferation and of vascular reaction is completely extinguished; and the obliteration of a vessel of moderate size will suffice to establish a progressive softening, for which there is no longer any check.

In caseous pneumonia the cavities are influenced by the special character of the inflammation. The circulation in fibrinous pneumonia is, for a while, impaired by lateral pressure on the capillaries; but in caseous pneumonia the stoppage is permanent, and due to endothelial growth. This peculiarity is sufficiently well marked to establish a safe distinction between caseous disease, and not only fibrinous pneumonia, but also the ordinary forms of catarrhal inflammation. The obliteration is not restricted to the capillaries, but attacks the larger vascular branches, cutting off all blood-supply to the districts involved. This blocking of the

bloodvessels, which has been described by Friedländer, by Grancher, by Hamilton, and others, is well illustrated in the diagram which I submit to you. I cannot agree with the view that the softening in caseous pneumonia is determined by this obliterative arteritis. I hold that the latter is but an ascending change; that it is altogether secondary to the arrest of the circulation within the capillaries; and that it does not, therefore, possess the ordinary value of an arterial thrombosis.

Equally distinctive of caseous pneumonia is the obliteration of the bronchial tubes, a feature less important anatomically than as a valuable guide to a diagnosis between the two forms of basic pneumonia. Under the influence of the same deep-seated irritation which leads to obliteration of the bloodvessels, the bronchi become permanently plugged by their own secretion and by the irritative proliferation of their epithelium. The practical result of the plugging is a complete stoppage of the air-traffic in the diseased region, and a loss of all auscultatory sounds. Instead of yielding bronchial respiration as in fibrinous consolidation, the lung is silent, whilst giving a percussion-note of absolute dulness. From this combination arises, even for the trained observer, a danger of mistaking caseous pneumonia for a pleurisy. The only physical sign establishing a distinction between these two conditions is the increase of vocal resonance in pneumonia, and its diminution in pleuritic effusion; but if the pneumonia be accompanied with thickening and oedema of the fibrous layers, the physician is deprived of this last diagnostic help. Hérard and Cornil relate cases in which the presence of pneumonia was veiled in the manner I have described; and a striking instance of the confusion to which I have alluded has come under my own notice.

I need not insist at length upon the mechanism of the process of excavation, upon the combination of liquefaction with that "dry crumbling" so typical of the disease. From the moment that softening has gained access to it, the entire mass is at the mercy of purely chemical forces. Undermined in various directions, large blocks of dense tissue are loosened and cast into the cavity, where they suffer ultimate disintegration. The lung-tissue is destroyed, as it were, in its integrity; neither interlobular septa, elastic fibres, nor bronchi offer any lasting resistance to the softening. Alone, the largest bloodvessels survive, thanks to their vasa vasorum, and to the great thickening of their coats; whilst the diseased tissue falls away from them, as it does from the thickened pleura, much as a ripe fruit is detached from the branch. Thus dissected by the softening, the vessels may long remain the sole occupants of the vomica.

In the common form of phthisis known as tuberculo-pneumonic, owing to the density of the morbid conditions, it is difficult to describe any special type of excavation. The following varieties are included in this group:—

1. Limited inflammatory processes leading to a generalised tuberculosis.
2. Catarrhal phthisis followed by tubercular infection of a local character.
3. Tubercular phthisis from the first complicated with much inflammation, which often specially affects the peribronchial tissue.

The process of softening may similarly partake of the features of the tubercular, or of the catarrhal, or of the caseous varieties. The excavations which will most engage out attention belong to this class; they need not, therefore, be further described at this stage of my subject.

In the third variety of phthisis, characterised by the large size and spongy state of the lung, and by the presence of buncy masses of pigmented fibroid tubercle, yielding a dry surface on section, excavation is a much less prominent feature than in the pneumonic forms. The cavities are often small; their walls are thick, abruptly cut, and usually provided with a pseudo-capsule. These vomicae, however, may occasionally attain a considerable size from a successive implication of neighbouring tubercular masses.

The rough sketch which I have endeavoured to give of some of the forms of excavating disease will convince you that, if attempted separately from a description of the respective pulmonary affections, a classification of cavities can possess but a limited value. For practical purposes some such classification is, however, required; and its most appropriate basis is probably to be found in a description of the cavity-walls.

In whichever process they may have originated, cavities pass through a period of formation, during which their walls consist of inflamed or necrosing tissue, incapable of prolonged vitality.

The absence of a limiting membrane usually implies that the excavating process is not completed; and that, actively or slowly, decay is progressing, laying bare successive strata of consolidation, and not infrequently exposing the calcified remains of earlier disease. The expectoration of chalky particles gives us a proof of tissue-destruction occurring in a fibrotic district, just as the detection of elastic fibres in the sputum points to the softening of a tissue where inflammatory changes bear a more recent date. In all these non-circumscribed cavities the surrounding tissue is caseous, fibrotic, or pneumonic, and is doomed, wholly or in part, to destruction. The line of demarcation has not yet been drawn; and too often, as in surgical gangrene, it fails to be drawn before the powers of life are exhausted.

It is, however, in the mature cavities that centre our chief interest and our hopes of successful treatment. The following is roughly the aspect presented by a cavity in this stage:—Internally, the surface is lined with a greyish false membrane, often of appreciable thickness, but, in other cases, possessing little more substance than the bloom on a fresh fruit. In either case it is readily detached, and exposes a red layer, which constitutes the inner or vascular portion of the capsule, the outer portion of which is purely fibrous. The relative thickness of these three coats varies according to the age of the cavities, and to the degree of irritation under which they may be placed.

During the suppurative stage, to which most cavities are liable, their innermost lining presents pyogenic characters; but at all other periods it can more aptly be designated as a necrotic layer. If examined under the microscope, it is found to consist mainly of caseous particles and of decaying cells, and to be merely an exfoliation from the inner surface of the cavity-wall. In this particular the cavity-wall may be said to resemble the wall of the medullary cavity of bone, for it sheds its waste products internally, and acquires thickness from without.

The real gauge for the activity of a cavity is given in the state of the vascular layer, which in irritative conditions becomes extremely congested. The remarkable polish of this surface, and its uninterrupted continuity with the surface of the air-tube, have often deluded observers into mistaking the cavity for a bronchial dilatation.

In comparatively rare instances the lining of the cavity becomes purely fibrous, and the space is ultimately encircled by a continuous layer of wavy fibres. More commonly, the fibres are interrupted and intermixed with a varying proportion of vascular tissue; but in all cases the fibrous layer is in contact with a fibro-nuclear zone, which becomes denser and more fibrous on the cavity side, whilst its outer boundary is lost in the spongy substance.

In brief recapitulation, the following are the chief features of the walls of cavities in phthisis:—

1. Absence of protecting epithelium.
2. Gradual decay within, leading to the formation of a necrotic layer (pseudo-pyogenic).
3. Gradual fibroid growth from without, constituting the so-called capsule.

The eminently practical classification of cavities given by Dr. Douglas Powell in his book on Consumption (second edition, page 102), is based upon the pathological states of the cavity-wall. Cavities are divided into four classes: (1) the recent; (2) the quiescent; (3) the secreting; (4) the active or ulcerous. As expressions of various phases of development and of morbid action, this nomenclature is complete, and it corresponds to equally well defined clinical states. From a different standpoint—that of anatomical description—I would propose, side by side with this useful division, the following classification of cavities:—

1. Cavities devoid of limiting membrane: excavation takes place by a crumbling in the dry variety, by a liquefaction in the moist variety. The usual type is the moist. Reaction is at a minimum, and disintegration often overtakes the fibroid zone before it has become a protection to the tissue. Special sub-varieties: *a.* Suppurative necrotic form, commonly present in acute phthisis, where it is apt to occasion pneumothorax; *b.* Simple liquefaction, apparently from soakage, most frequently witnessed in compressed devitalised tissues when attacked by œdema; *c.* Ichorous ulceration, observed

in the rigid and sinuous burrowings of indurative chronic pneumonia.

2. Cavities possessing a distinct capsule in the midst of spongy lung: excavation is due to limited caseous abscesses, frequently also to the softening of hæmorrhagic foci.

3. Chronic cavities with thick lining, continuous with more or less condensed tissue.

4. Chronic cavities with thick lining, surrounded by a rim of tubercle.

After this rough review of the varieties, and of some of the modes of origin of excavation, the subject of the topography of cavities can be best introduced by a few remarks concerning the etiology of apex-disease. It may be well to sift the evidence concerning the locality of the latter.

In the later stages of pulmonary consumption, it must be conceded, the vomica commonly extends to the summit of the lung. It is habitual, however, even at this stage, to find the cavity lateral rather than median in its axis; and I may state at once that the extension of a cavity to the periphery is mainly a matter of time. We cannot, therefore, with safety conclude from the size and position of the late cavity to the size and situation of the earlier disease. Clinical observation supplies us with valuable evidence in our endeavour to settle the question. A careful diagnosis will not fail to convince us that the early consolidations are more commonly seated in the subclavicular region than at the apex. The same fact is often capable of direct demonstration, when at the time of death one of the lungs is as yet but slightly affected.

With this reservation, I would proceed to discuss the etiology of the apex-lesions. I hesitate to attribute to posture so direct an influence on the localisation of phthisis as is implied by Lebert and by Rindfleisch, and I would look rather for the operation of functional causes. During the bulk of our existence, respiration at the apex is decidedly sluggish; and, even in the female type of breathing, the pectoral region, rather than the apex proper, is the seat of respiratory activity.

Just as attention and training, combined with exalted vital energies, can effect an improvement of the apex-breathing, impairment of function will follow upon a general loss of tone. Even in conditions of fatigue, depression of apex-breathing is perceptible. In the initial stage of phthisis, the depression to which I have referred is extremely striking. The direct outcome of such a condition of lessened respiration is doubtless lessened aëration of the blood. But it is upon the bronchial system that expiration exercises its most beneficial influence. In the absence of thorough expiration, the tubes cease to be cleared of their contents; and under the influence of the impairment in the general tone of the bronchial membrane, their secretion becomes abnormal in quantity and in kind.

The stagnation in the tubes of the apex is explained by Rindfleisch in a somewhat different light. Rindfleisch, in his first proposition, states that the secretions of the apex are thicker than those in any other part of the lung. The inspissation, according to the same observer, would be due to a relative dryness of the apex structures, caused by a subsidence of the blood within the vessels, in accordance with the laws of gravitation; but the mechanical explanation given for the gravitation of blood towards the base is weakened by an omission of the most important among the normal conditions of the vessels. The pulmonary vessels are not only elastic tubes, but tubes embedded in an elastic tissue which is never quite free from tension. In the variations of the pulmonary tension, and, on the other hand, in the varying contractility of the small vessels, are to be found the real moderators of the circulation. Leaving out of consideration the slight suction which intermittently arises in the large intrathoracic veins, I fail to discover, in the supposed emptiness of the latter, a force capable of materially influencing the contents of the capillary system. The minor details to which I have alluded in the theory supported by Rindfleisch are, in my estimation, less important than its leading idea. The drift of the theory is to refer apex-disease to local anæmia as a cause. With such a conclusion I feel that much of our clinical and much of our post-mortem experience will be hard to reconcile. The derivation of any such view from clinical observation would have appeared to me almost impossible.

For my part, I believe congestion to be never absent from the earliest phases of pulmonary phthisis. Of the existence

of some degree of congestion as an early condition, we possess clinical evidence, if we are to trust to the usual interpretation of the auscultatory sounds, and anatomical proofs of the same fact are not wanting.

The arguments which I have ventured to put forward in discussing the etiology of cavities at the apex derive welcome support from the rarity of vomicae at the base, where the respiratory conditions are widely different.

So rare is the occurrence of primary phthisis at the base, that the evidence pointing to excavation in this situation must be weighed with extreme caution; a searching examination not infrequently proves that cavernous sounds are merely conducted to the base, which at first were deemed strictly basic. When the existence of excavation limited to the base is capable of demonstration, its origin will generally be found to be distinct from phthisis.

Among the causes leading to cavernous sounds in this situation, bronchial dilatation probably holds the first rank; in suspected bronchiectasis, we should never fail to inspect the region immediately below the angle of the scapula, as one specially obnoxious to the disease. Gangrene as a source of excavation is especially common at the base in connexion with the relative frequency of basic pneumonia; and empyema leading to pulmonary cavity is equally prone to affect the lower part of the chest.

Syphilis should not be omitted as an occasional cause of basic disease. Vomicae due to this disease may be the result of the softening of a gumma or the secondary consequence of ulceration within the bronchi. The relative frequency with which syphilitic lesions are described at the base is doubtless due to the difficulty which commonly attends a distinction between a specific affection at the apex and the ordinary results of phthisis. It is not improbable that vomicae due to syphilis are as often apical as basic. Schnitzler, however, regards the middle and lower lobes of the lung as the seat of election for this disease.

Among the many causes which may be classed as fortuitous the most important in respect of frequency is the extension of abscesses from neighbouring regions—from the peritoneum, from the liver, from the spleen or the kidney. Hydatids constitute a separate group of great interest: the disease may originate within the thorax, or more commonly makes its way upwards from the liver. The impaction of foreign bodies in the lower bronchial divisions occasionally leads to excavation, as in a remarkable case narrated by my friend Dr. Mitchell Bruce in his instructive lectures on Basic Cavities, at present in course of publication in the *Practitioner*. Lastly should be mentioned, although not least important, the softening of the hæmorrhagic nodules described by Dr. Reginald E. Thompson, which will form the subject of some further description in my next lecture.

With the exception of the last, the diseases which I have enumerated do not strictly fall within the territory of phthisis, although phthisis too often becomes developed in their later stages, and for this reason I reluctantly refrain from any further comments concerning them. This deficiency will be amply supplemented by Dr. Bruce's lectures, which contain a more practical treatment of the whole subject than could have been attempted by me.

Beyond a recognition of the frequency of cavities at the apex and of their rare occurrence at the base, the topography of cavities does not appear to have been hitherto specially studied. With a view to supplying some material towards a better knowledge of this subject, I have made careful post-mortem observations in a series of 152 consecutive cases of phthisis, including five cases of bronchiectasis, and I propose bringing this lecture to a close with a review of the results which I have obtained in connexion, first, with the size; and second, with the position of cavities.

1. In respect of size, the following gradations were noted:—The transformation of a whole lung (with the exception of very small surviving portions) into a single cavity was observed in five cases (three on the right side, two on the left). In addition to these, the left side furnished three other instances of very considerable disease, both lobes being converted into very large cavities which intercommunicated through a perforation in the septum, thus very closely approaching a condition of total excavation.

Excavation of the whole upper lobe occurred in twenty-six cases. These lobar cavities were situated:

On the right side:
12 times;

On the left side:
14 times = 26.

Including the five cases of total destruction of a whole lung which I have mentioned, the interlobular septum was perforated by ulcerations in twenty-three cases, the lesions occurring:

On the right side:
10 times;

On the left side:
13 times = 23.

The size of the perforations varied considerably, between the diameter of a goose-quill and that of the lung itself. In all these cases the excavations were large, and in most the ulceration appeared to have been induced by the downward extension of the cavity.

For the great bulk of the remaining cases where excavation did not implicate an entire lobe, standards of comparative measurement were selected in the average-sized Seville orange, in the Tangerine orange, and in the ordinary walnut; and the cavities were arranged in three corresponding groups.

To the first group, comprising cavities as large as, or larger than, the ordinary orange, belonged seventy-nine of the cases. The position of the cavities was as follows:—

On the right side:
53 times;

On the left side:
54 times = 107.

Large cavities existed therefore simultaneously on both sides in twenty-eight of the cases.

In the second series, numbering fifty-two cases, the cavities ranged between the size of a Tangerine orange and that of a walnut. They were found respectively—

On the right side:
42 times;

On the left side:
38 times = 80.

Thus, in twenty-eight cases, both sides were simultaneously excavated (not including several cases in which simple softening existed in the lung least diseased). The usual site of these cavities was the upper lobe; this, however, was not invariably the case, for, in nine instances, the larger cavity was situated in the middle third of the lung.

In a third series of nineteen cases, the cavities did not exceed the size of a walnut; with four exceptions, they acquired a larger size at the apex than in the lower lobes. In most of these instances, although the vomicae were comparatively small, the extent of the softening was considerable, and the disease implicated larger portions of the lung than in cases where the cavities attained more important dimensions.

It is unnecessary that I should add any comment to the simple statements which I have enumerated. The figures speak for themselves; they bring into relief the remarkable evenness with which right and left sides are affected. They also point to a great tendency in the cavities of chronic phthisis towards a progressive enlargement; and they show plainly that the severity of the disease cannot be estimated by the magnitude of the vomicae.

2. If we pass to a consideration of the topography of cavities, we find, in corroboration of the results of other observers, a great predominance of disease in the upper part of the lung. Thus, in the whole series, the apex presented:

Complete absence of disease.	in 4 cases.
Pneumonia or blood-deposits (without excavation)	„ 3 „
Tubercular masses (without excavation)	„ 3 „
Tubercle and pneumonic masses (without excavation)	„ 1 case.

In all the remaining instances, excavations existed at the upper part of the lung. I have abstained from a more complete analysis of this region, partly having regard to the uncertainty which exists as to the real limits of what is termed the apex, and partly also from a consideration of the fact that, in chronic cases, the upper part of the lung rarely fails to become finally involved, although not always diseased from the first. It should, however, be stated that the outer region of the apex is found far more frequently than the inner region to be the seat of late excavation.

The base afforded a remarkable contrast to this frequency of the apex disease. In the aggregate of 304 lungs, thirty-two only presented the features of basic excavation; and at least one-third of these cavities were mere extensions of cavities beginning in other regions, especially in the axilla. Tubercle, both of the sporadic and of the grouped variety, occurred with tolerable frequency. But the deposits more specially characteristic of the base

were of non-tubercular nature. They consisted either of hard nodules, such as those described by Dr. Reginald E. Thompson as hæmorrhagic, or of the softer masses which are so commonly found at the fringe of the lung as one of the latest results of phthisis. It may be incidentally stated that both the hard nodules and the soft masses are liable to break down; and, if surrounded by the pneumonic œdema which is habitually induced at the base during the last few days of life, may become the starting-point of extensive disorganisation.

The great frequency with which the sternal region escapes disease will be gathered from an inspection of the following table:—

Sternal Region.

	On the right.	On the left.	Total.
Absence of lesions	71	66	137
Excavation by extension	9	16	25
Separate cavities	21	15	36
Bronchiectasis	6	3	9
Fibrous changes (only)	12	16	28
Pneumonia (only)	6	7	13
Tubercle (only)	6	5	11
Hæmorrhagic nodules (only)	4	9	13
Other nodules (only)	17	15	32
	152	152	304

The sternal region in its lower portions closely emulates the immunity of the base, but in its upper part it is liable to suffer from the extension of vomica from the apex and from the mammary region. It further resembles the base in preserving its spongy nature to a late period (thus acting as a reserve of breathing tissue), and in showing a liability to the late nodular deposits which I have mentioned above; but, probably owing to its position in the chest and to its vascular relations, it is less subject to the thrombosis and to the pneumonia which so commonly overtake the base.

The next table to which I would call your attention refers to the lesions which were found in the mammary region.

Mammary Region.

	On the right.	On the left.	Total.
Absence of lesions	14	20	34
Excavation by extension	38	45	83
Separate cavities	57	49	106
Fibroid condensation (only)	18	18	36
Bronchiectasis (only)	3	2	5
Tubercular and nodular deposit } in the absence of excavation }	22	18	40
	152	152	304

The facts expressed by these numbers are briefly the following:—

The mammary region escapes disease but rarely (in a proportion slightly exceeding one to ten) in cases of advanced phthisis. Excavation, on the other hand, does not occur in more than one-third of the cases. Whether taken separately or in their aggregate, the various figures relating to this region show once more very strikingly the uniformity with which disease affects both sides of the chest. It will be noticed that cavities are more apt to be formed in the left mammary region than in the right, but the latter is more frequently the seat of separate excavation. This difference is partly to be explained by the smaller size of the left lung, and by its anatomical relations, which restrict its expansibility. The greater respiratory surface possessed by the same region in the right lung finds another demonstration in the relative frequency of nodular and tubercular deposits as compared with the left. A more exact localisation of the vomica in the mammary region was attempted in fifty-three of the cases only. The central mammary region yielded thirty-one cavities, and the outer nineteen, against three cavities referable to the inner portion of the same district. These numbers are too small to warrant any conclusion beyond the fact that the inner pectoral region is not favourable to excavation.

The dorsal aspect of the lung, owing to the space occupied by the vertebral column and mediastinal structures on the one hand, and by the root of the lung on the other, is comparatively of less extent than the anterior surface. The portion corresponding to the vertebral groove is not specially prone to disease; it is commonly found yet spongy when

the mass of the organ is disabled. Excavation in this situation is one of the latest events, and not unfrequently it is due to the softening of loose masses of irritative pneumonia, such as I have described at the base. Of the remaining portions of the posterior pulmonary surface, the upper and the lower have been included respectively in the description of the apex and of the base.

The Mid-Dorsal Region.—I would now propose to consider the mid-dorsal region in conjunction with the axillary district, with which it is closely connected in the march of the disease. In this section of the lung the following results were obtained from a study of my 152 cases:—

Dorso-Axillary Region.

	Right.	Left.	Total.
Absence of lesions	14	15	29
Excavation	111	116	227
Fibroid changes (only)	2	1	3
Compression (only)	0	1	1
Pneumonia or caseation (only)	2	1	3
Edema (only)	0	0	0
Caseating tubercle (only)	0	3	3
Dry tubercle (only)	18	7	25
Nodules (including hæmorrhagic deposits)	5	7	12
	152	152	304

We gather from this table a knowledge of the remarkable proneness to disease peculiar to this region, and of the yet greater proneness to excavation. As in the other parts of the lung, the two sides show but little difference. The excess in the number of cavities in the left axilla, and of tubercle in the right, is probably correlated with the relatively larger extent of breathing-surface at this section of the chest, on the right than on the left side, whereby the secondary excavation is comparatively delayed in the right lung.

In conclusion I venture to submit for your consideration a tabular statement of the frequency of excavation in the various pulmonary regions derived from the tables given above.

Regional Frequencies of Excavation of 304 Lungs examined.

Excavation at the apices	282
„ „ dorso-axillary region	227
„ „ mammary „	189
„ „ sternal „	61
„ „ base	32

The most striking fact revealed by this table is the high proportion which the dorso-axillary excavation bears to the total number of cases of chronic phthisis. I doubt whether clinical observations have hitherto led to so high an estimate of the frequency of the lesion. A knowledge of this pathological fact cannot fail to stimulate a more searching clinical exploration of a region so liable to disease, and to strengthen the conclusions which our diagnosis may derive from physical methods of examination. I will defer until my next lecture a discussion of the pathological meaning, and of the etiology of excavation in this district. My present object was merely to call attention to the existence in the dorso-axillary region of a special tendency to excavation, to point to the clinical value of a knowledge of this tendency; and to submit to you, as an apology for the dry facts with which your patience has been tried, a practical proof of the assistance which anatomical study may tender to diagnosis.

THE VIENNA HOSPITALS IN 1880.—According to the returns of the three chief Vienna hospitals, there remained at the beginning of the year 2903 patients (1659 males and 1244 females) and 34,158 (20,182 males and 13,976 females) were admitted during the year, making a total of 37,061. Of these, 21,103 (12,564 males and 8539 females) were cured, 5750 (3587 males and 2163 females) were improved, 2907 (1562 males and 1345 females) were discharged uncured, 4484 (2549 and 1935 females) died, and 2817 (1579 males and 1238 females) remained at the end of the year. The whole number 37,061 (21,841 males and 15,220 females) occupied 3460 beds, which were filled, therefore, more than ten times.—*Wien. Med. Woch.*, No. 3, 1882.

ORIGINAL COMMUNICATIONS.

NOTE ON THE

CULTIVATION OF CINCHONA IN INDIA,

AND ON THE MIXED CINCHONA ALKALOIDS
RECENTLY INTRODUCED INTO INDIA AS A CHEAP
SUBSTITUTE FOR QUININE.

By JAMES IRVING, M.D.,
Surgeon-General Bengal Army (retired).

DR. FORBES ROYLE, Superintendent of the Botanic Gardens at Saharunpore, in the Bengal Presidency, in the year 1835, suggested to the Directors of the H.E.I. Company that the cultivation of cinchona should be attempted in the Khassia and Neilgherry Hills; but this was not carried out, nor was any attention paid to similar proposals on the same subject which he repeated in 1847, 1853, and 1856. Dr. Grant, Apothecary-General to the Company, as well as Dr. Falconer, Superintendent to the Botanic Garden, Calcutta, and his successors, Dr. T. Thomson and Dr. T. Anderson, supported by the Medical Board, had also pointed out the probable advantages of introducing cinchona; but it was not till the year 1858 that the Secretary of State for India sanctioned the despatch to South America of Mr. Clements Markham, with whom were associated Messrs. Pritchett, Spence, and Cross, in order to collect cinchona plants and inquire into their cultivation in their native country. After overcoming many great difficulties, these gentlemen managed to transmit a few plants to Madras. The first attempt at growing them was made in the Neilgherry Hills under the direction of Mr. Markham, ably seconded by Mr. McIvor, Superintendent of the Botanic Garden at Ootacamund; and so successful were they, that in little over eighteen months they had raised more than 30,000 plants of different species of cinchona, chiefly *C. succirubra*. Thence the cultivation was extended to the hills of Sikhim, near Darjeeling, in Bengal, by Dr. T. Anderson, who in 1861 went to Java in order to bring specimens and study the Dutch mode of cultivation. Great difficulties had to be overcome, and in his efforts to surmount them Dr. Anderson's health suffered grievously, and eventually he died. In the year 1864, a place called Rungbee, in Sikhim, about 4410 feet above the sea-level, was selected for the cinchona plantation, not far from the British station, Darjeeling. The first plantation contained 100 plants of *Cinchona succirubra*, the same number of *C. officinalis*, fifty of *C. micrantha*, two of *C. calisaya*, and 271 of *C. Pahudiana*. It soon became evident that the *officinalis* species did not thrive, and its cultivation was stopped. The *succirubra* proved to be hardier and more easily propagated, and it was soon apparent that the yellow bark tree (*C. calisaya*) was likely to do well. From the annual report on the cinchona gardens by Dr. G. King, Superintendent of the Botanic Garden in Calcutta, for 1881-81, it appears that there are at present 4,034,535 plants of *C. succirubra*, 412,695 of *C. calisaya*, 199,898 of an unnamed variety, and 30,592 of other species, or in all 4,677,720. The first three are the species now cultivated, all others which had been tried having for various reasons been abandoned. The species richest in quinine are the *calisaya* and the unnamed variety, which is supposed to be a hybrid. The first plant of this hybrid appeared among a set of seedlings raised from seeds which had been sent by Dr. Thwaites, of the Royal Ceylon Botanic Gardens, some years ago. It grows well in Sikhim, and at a higher elevation than *calisaya*. The large stock of this variety has all been propagated from a single seedling. Propagation by cuttings, in fact, is the only way of increasing the number of plants, as it does not come true to its seed, a large number of its seedlings resembling *C. officinalis*, which is not worth cultivating. The term *calisaya*, Dr. King states, covers a large number of varieties, many of which produce barks containing little or no quinine, but which, he considers, answer well enough for tinctures and other pharmaceutical preparations. There is, however, one variety very rich in quinine, and which, in compliment to Mr. Ledger, the collector who brought it from South America, has been called *Ledgeriana*. It too is propagated by cuttings. Specimens of this bark sold in London for 10s. 10d. per lb.

Cinchona bark contains four principal alkaloids—quinine,

cinchonine, cinchonidine, and quinidine,—but till comparatively a recent date only the first was used as a remedy for malarious fevers. In 1868 committees were appointed in India to test the virtues of the other three alkaloids—the preparations being supplied chemically pure by Messrs. Howard and Son. These committees reported favourably, to the effect that in ordinary cases of uncomplicated malarious fevers the new alkaloids appeared to be almost as efficacious as quinine. To the Government of India, which was anxious to obtain a cheap and trustworthy substitute for quinine, these reports were very gratifying, more especially as they pointed out how the red bark—the species most easily cultivated in India, and abounding in alkaloids other than quinine—might be utilised for the purpose; thus carrying into effect a suggestion of Mr. Markham, who proposed that the bark, instead of being sent to Europe, should be converted in India into a preparation containing a mixture of all the alkaloids, under the name of quinium. In October, 1866, Mr. Broughton, a chemist from the Laboratory of the Royal Institution, London, was sent to Madras, where he commenced numerous experiments on the life-history and chemistry of cinchona and its alkaloids. These he published in various papers from time to time. The result of his experiments was the issue of a febrifuge under the name of “amorphous quinine,” which consisted of a mixture of all the alkaloids contained in the bark, in the form of a non-crystalline powder, mixed with resin and red colouring matter. This powder was very favourably reported on by the medical officers of Madras. It was found, however, in 1873, after 600 lbs. had been prepared, that it cost more than sulphate of quinine as obtained from England. The preparation was therefore discontinued. But the same year the Secretary of State for India sent out Mr. C. H. Wood, an able chemist, to carry out similar researches in reference to the cinchona produced in Sikhim, in Bengal. Mr. Wood was not able to commence operations till 1875. His process is as follows:—The roughly powdered bark is first exhausted with cold acidulated water, and the resulting liquor precipitated by a caustic alkali. No fuel is required, except for the drying of the precipitate; no machinery, and no skilled labour. He states that, taken in large bulk, the Sikhim red bark yields a mixed alkaloid of an almost uniform composition, as follows:—

Crystallisable quinine . . .	15.5 parts
Amorphous quinine . . .	17.0 „
Cinchonine . . .	33.5 „
Cinchonidine . . .	29.0 „
Colouring matter, etc. . .	5.0 „

Total . . . 100.0 parts

The drug thus prepared and extensively used in Bengal and Bombay is known as mixed cinchona alkaloids, cinchona febrifuge, or Darjeeling quinine. During the year 1880-81 9296 lbs. were manufactured, at a cost of rather less than 18s. 6d. per lb. Oddly enough, it does not seem to gain much favour in Madras, although the one proposed by Mr. Broughton, and which was almost identical in its mode of preparation, was in repute there.

When the preparation was first issued for use in Bengal (and I suppose the same occurred in Bombay), there was undoubtedly a strong prejudice on the part of medical officers against it, owing to its disagreeable taste and small, but chiefly to its tendency in some cases to produce nausea, and even vomiting, as well as an uncomfortable feeling of griping. These effects are believed to be owing to the presence of amorphous alkaloid which it contains, and from which a somewhat similar preparation made in America and in this country, and named quinetum, is purified. Mr. J. E. Howard in reference to this says:—“For ‘alkaloid’ I should substitute ‘alkaloids,’ for I have said in 1862 that ‘the characteristic peculiarity of red bark is that it ordinarily contains—and that irrespective of the brightness of the colour—as much as 3 or 4 per cent. of the substance of the bark, and this divided among the alkaloids, quinine, cinchonine, cinchonidine, quinicine (?), and aricine (?).” He further says that he has reason to believe that the last is a powerful emetic; “and if the amorphous alkaloid contains a modification of this substance, I do not wonder that the effects are disagreeable.” A small Indian Blue-book has recently been issued, giving the results of extended trials of the mixed cinchona alkaloids; and one of the documents printed in it is a

paper by Dr. P. J. Freyer, giving an abstract of the reports of all the civil medical officers in the North-Western Provinces and Oudh who had made use of the new remedy. A brief analysis of Dr. Freyer's deductions may be interesting. The number of reporting medical officers is not given, but it is stated that the alkaloids were tried for a year in gaols, police hospitals, and dispensaries; and at the time that the new remedy was employed, alternate cases were treated with quinine. All the officers who report consider the alkaloids of undoubted therapeutic value in the treatment of ordinary malarious fevers—though the weight of testimony is in favour of their being inferior to quinine in every respect, and not trustworthy in the treatment of cases of severe intermittent or remittent fevers. Quinine effects a more speedy cure. The new remedy is considered an excellent tonic in small doses. Disagreeable gastric symptoms occur in about one-third of the cases in which it is given. A combination of sedatives and aromatics is said to obviate these symptoms. The best dose is said to be from five to ten grains. Given in larger quantity, gastric symptoms are very apt to occur. According to some, it is best administered in the form of pill, and according to others, in acidulated solution.

Medical officers of the A.M.D. are very generally opposed to the use of the mixed alkaloids for European soldiers, on account of the frequent disagreeable effects. Some of them, however, have spoken favourably of the remedy. There is no denying that disagreeable effects not very uncommonly follow the use of the remedy, and it therefore seems very desirable that the obnoxious principle should, if possible, be removed. But, even as it is, its introduction has been a great boon to the people of India, as it is very much cheaper than quinine, and infinitely superior as an antiperiodic to any of the indigenous drugs.

CASES ILLUSTRATING

THE ANTISEPTIC TREATMENT OF MAMMARY ABSCESS.

By A. W. MAYO ROBSON, F.R.C.S. Eng.,
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I ALMOST feel that an apology is needed in bringing before the Society a series of such ordinary cases as gathered breasts; and yet I venture to think that some of the commonest ailments merit at our hands rather more of the attention we are apt to bestow on rarer affections. What can be more distressing to the patient, her friends, or her medical attendant, than, at a time when the invalid is nicely recovering from the debilitating physiological process of labour, to have her convalescence retarded by a painful and weakening inflammation leading to abscess, which, by keeping up a discharge, may act as a drain on the system for a lengthened period?

I have no doubt it is within the recollection of everyone present, how, under the old *régime*, it was the custom to poultice day after day, or perhaps week after week, opening the abscesses as they formed, or allowing nature to perform the operation, until, in the long run, the patient was worn down to a serious extent, and the gland itself was seamed and scarred in every direction. To enumerate cases like this would be tedious and unnecessary; therefore, I shall describe two or three examples of the new and, I venture to think, superior treatment.

Case 1.—Mrs. P., a month after confinement, thought she caught cold, and felt pain in her left breast, which, when I was called in, was acutely inflamed. I ordered belladonna liniment to be gently applied, and the breast to be poulticed frequently. After four days I detected deep fluctuation, and, under strict antiseptic precautions, made a free opening, letting out a good amount of sweet pus. I inserted a drainage-tube, and dressed the wound with salicylic silk. All pain disappeared, and the parts had not to be disturbed for a week, when I redressed it and removed the tube. After another week I dressed it again, but there had only been a little pale-coloured discharge into the dressing, and no pus. The silk was reapplied, and as my patient was quite comfortable and going about the house in

the usual way, it was not removed for a fortnight, when the wound was perfectly healed and scarcely a mark visible. She had never felt any pain after the opening was made, and had been able to take her food and move about as if nothing had happened.

Case 2.—Mrs. J., a few weeks after confinement, began to have pain in the right breast, which gave her so much distress and made her so ill that she sent for me. I found a large abscess, which I opened antiseptically, and introduced a drainage-tube. It required dressing two days afterwards, and then at the end of the week, when the tube was removed. At the end of a fortnight the third dressing was removed, but as the wound was healed it was not reapplied. Mrs. J. had been able to go about her household duties after the first day, and was out of the house before the end of the week. As she had had a gathered breast on a previous occasion she could make a comparison between the antiseptic and the old method. She told me that in her former illness she had been ill for nearly three months, but that on the present occasion she had never felt unwell after the opening was made.

Case 3.—Mrs. S., a weak, pale and sickly-looking person, flooded after her first labour, and was thus brought extremely low. Although she had strengthening food and took ferruginous medicines she very tardily regained her colour. Six weeks after labour her breast inflamed, and was opened antiseptically; it was dressed on the fifth day, on the tenth, and on the twentieth, when it was healed. Thus, in the worst of subjects, the abscess healed as kindly as it would have done in the healthiest person; moreover, there being practically no discharge after the first few days, my patient's strength was not further deteriorated.

Case 4.—Mrs. A., a healthy lady, recovered after confinement very nicely, but five weeks after the event had to sing in a festival rehearsal, and felt the cold affect her breast. I was called in a week afterwards, and found a collection of pus in the left mammary gland, with great swelling and œdema of the surrounding gland. My patient was in great pain and in considerable mental distress, because she had to take the chief part at a concert in a few days, which engagement she feared she would be unable to keep. I opened the abscess freely under carbolic spray, and dressed it with salicylic silk. It was dressed on the third, sixth, and ninth days, when it was nearly healed, but the dressing was reapplied, and left on for ten days longer, at the end of which time there was neither hardness nor discolouration of the breast, and only a linear scar visible. Mrs. A. was able to perform her usual duties after the first dressing, and was thoroughly well at the time of her important engagement.

To enumerate more examples would be tedious and unnecessary, but I hope that the cases I have described will sufficiently illustrate the great advantages to be obtained by adopting the antiseptic system in the treatment of mammary abscess.

The advantages claimed are:—1st. The stoppage of purulent discharge after the first evacuation of the pus, thus husbanding the patient's strength. 2nd. Prevention of secondary abscesses, both local and general. 3rd. By preventing decomposition in the wound, and absorption of its products, stopping all feverish symptoms; thus restoring rapidly the functions of the digestive system, and enabling the patient to take nourishment. 4th. A saving of time and trouble to the medical man and to the attendants.

TOLERATION OF MORPHIA.—Dr. Brug relates the case of a lady aged forty-six, to whom he was called and found in a state of collapse, vomiting, and stomachic suffering, brought on by an attempt made by her to suddenly break through a morphia habit she had acquired. She had taken it without intermission during nine years, and with some intervals for fourteen years, having commenced with quarter-grain doses for the relief of rheumatism. After her recovery she continued it to from fifteen to twenty grains daily; and when she had any trouble on her mind, would double the dose for a few days. For three weeks she had taken a drachm per diem, and on several days eighty grains—the whole daily allowance being taken between three and five o'clock. She was relieved from her state of collapse by hypodermic injection of morphia, and then commenced a trial of gradually breaking through the habit.—*Boston Med. Journal*, Feb. 9.

(a) Read before the Leeds and West Riding Medical and Chirurgical Society.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

CASES OF MALIGNANT ENDOCARDITIS.

(Under the care of Dr. SIDNEY COUPLAND.)

(Continued from page 260.)

Case 2.—Vegetations on Mitral Valve and Auricular Endocardium—Ulceration of Chordæ Tendineæ—Enlarged Spleen—Old Infarctions in Spleen and Kidneys (?)—Marked Septic Fever.

JOHANNA D., aged forty-eight, a widow and lady's-maid, was admitted into Murray ward on February 24, 1881, with symptoms of heart-disease. She had had a mild attack of rheumatic fever eleven years ago, for which she had kept her bed about a fortnight; but neither before nor since (until her present attack) had she suffered from any illness. For the past three months she had been suffering from malaise, with palpitation, faintness, and shortness of breath upon the least exertion, so that she became quite unable to follow her occupation. Her appetite became indifferent; but she slept well. The catamenia had been absent for three months.

State on Admission.—A spare, dark-haired, sallow woman, of depressed aspect, complaining of general debility, palpitation, and liability to fainting. Temperature 100°; pulse 96; respirations 32. The pulse is thrilling, and rather jerking, but small and compressible; and there is visible tumultuous beating of the carotids. Cardiac dulness not increased; position of apex-beat not to be defined, but at its supposed site a diffuse thrilling impulse is to be felt. A loud, rasping, systolic bruit is here audible, and is conducted with increasing intensity round the left axilla to the back, being plainly audible at the angle of the scapula. The second sound is sharp and well defined on both sides of the sternum, only at the aortic cartilage it is preceded by a soft systolic murmur. This murmur is audible in the carotids. The pulmonary physical signs are normal, with the exception of slight impairment of resonance, and harsh breathing at the left posterior base. The abdomen is tympanitic; hepatic and splenic area of dulness normal. Tongue dry. Urine, specific gravity 1025, acid, depositing lithates, free from albumen.

Progress of the Case.—The temperature in the evening was 98·2°; next morning, 98·4°; pulse 96. For a few days no notable change occurred, the main feature being a tendency for the temperature to rise above the normal—e.g., on evening of 26th it was 101·6°; on the 28th she complained of præcordial pain; the murmurs were louder and more distinct; no friction.

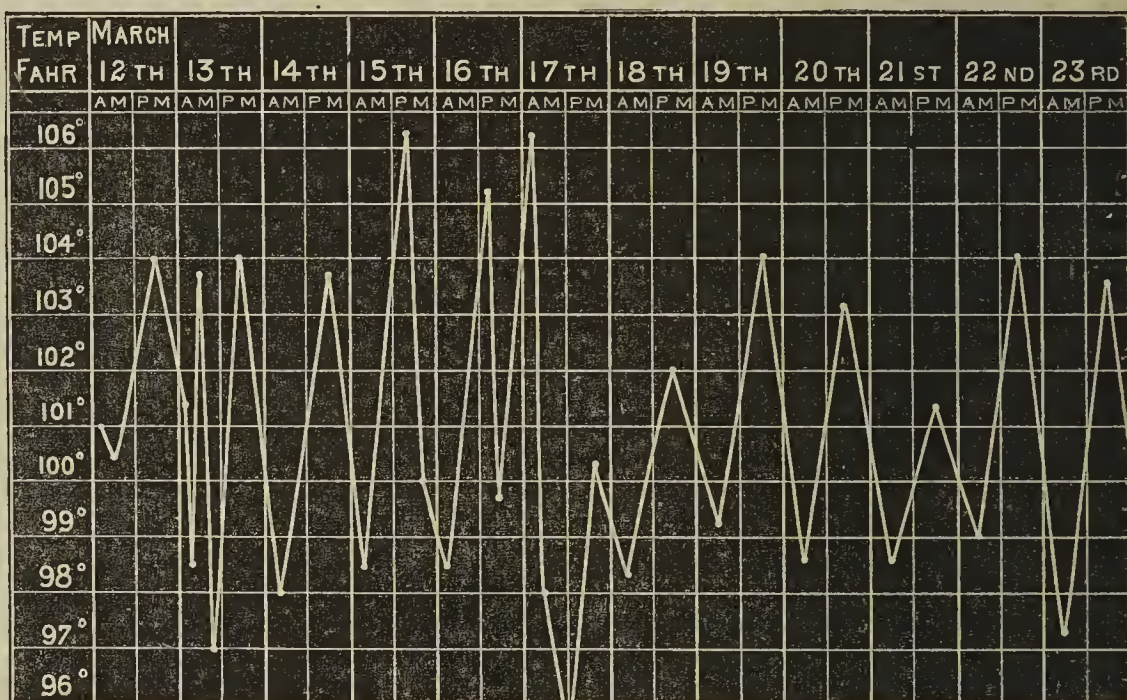
On March 1—i.e., five days after admission—the pyrexia first began to show unmistakable indications of septic poisoning. In the night she had felt cold and shivering. She shivered again about half an hour after breakfast; temperature 103°; pulse 108; skin hot and moist. She was very low and depressed, crying when addressed, and complaining of headache. Five hours later the temperature was 98·8°; at 9 p.m., 100·4°, the pulse then being 104. She said that she "felt a chill go through her every now and then." There was no recurrence of the rigors for some days, but the pyrexia followed a very irregular course, the morning being generally slightly over 99°; the evening more variable, but above 101°, 102°, 103°, and on the 12th 104°.

On March 2, the day after the first rigor, she suddenly became very faint, and felt a creeping sensation all over her, and great pain in the abdomen. A little wine administered was immediately rejected, and for some time she kept tossing herself about in bed, constantly moaning. There was no evidence of splenic or renal embolism to account for this seizure, and no undue distension of the belly, so that it was believed to be a form of angina. Opium was given, and the pain gradually wore off, but her aspect remained haggard and depressed.

On the 4th (temperature 99·4°, pulse 88) she felt better. It is noted that the systolic apex murmur is hard and rasping, that at the base very soft. Evening temperature 102·8°. On the 8th the pulse rate was only 64 in the morning, rising to 96 in the evening. The pulse was irregular.

She had hitherto been taking a mixture of quinine and iron; but on the 12th, owing to the continuance of the pyrexia, and the possibility of an underlying rheumatic condition, a draught of salicylate of soda and sal-volatile was given at night in addition.

The pyrexia continued, however, to have a course and character resembling pyæmia rather than rheumatic fever (see *Chart*, which represents the diurnal variations in temperature from March 12 to 23). It showed, however, a marked difference from the ordinary pyæmic course, there not being, as a rule, more than one maximum in the day, and that generally in the evening, the minimum occurring in the morning. But this was much varied, and sometimes reversed, so that the maximum temperature occurred in a morning hour. There was generally a daily range of three



or four degrees, sometimes as much as six or seven degrees; once it was eleven degrees, viz., on March 17. The extreme rises (to 105° or 106°) were generally made suddenly, and the subsequent fall of three or four degrees took place in two or three hours or less; and this, together with the fact that the exacerbations were frequently marked by a more or less distinct rigor, approximate the pyrexia to that of pyæmia. Possibly the rapid fall on some occasions was due to quinine, which was given in twenty-grain doses when the temperature rose. On March 31, indeed, this drug was ordered to be given every afternoon at four o'clock, in the hope that the exacerbation might be anticipated. Whether in consequence of this or not, certainly from that day the temperature only reached 103° on two or three occasions. The patient bore the quinine well; the salicylate was still continued. A few notes of her condition during this period may be given.

March 15.—2 p.m., temperature 100·2°. 6 p.m., temperature 105·2°, pulse 104; lies in a depressed condition, but is not in pain. Has had several shivering fits. Pulse is weaker, face flushed, breathing quick. 7.30 p.m., temperature 106°.

16th.—10 a.m., temperature 97·8°, pulse 88; much better, nervous and irritable. 7.30 p.m., temperature 105·2°; pulse 100, thrilling. Lies on back very prostrate, with short catching breathing. No pain, but feels very hot; skin dry.

Had a shivering fit a short time ago; tongue tremulous; carotids violently pulsating; heart's action forcible; murmurs unchanged; pupils equal, moderately dilated. Quinine twenty grains. 8.30 p.m., temperature 99°8'; 10 p.m., temperature 103°6'; 12.30 a.m., temperature 106°2', and quinine repeated.

17th.—2 a.m., temperature 101°4'; 8 a.m., temperature 98°8'; 10 a.m., temperature 96°8'. She looks haggard and depressed. The next night was passed well, the temperature ranging low; and during the 18th not reaching above 101°8'; urine 1030, acid, no albumen.

19th.—2.30 p.m., temperature 101°; 7 p.m., temperature 104°4'.

20th.—9 p.m., temperature 103°8'.

21st.—6 p.m., temperature 101°6'.

On the 22nd, after a slight shiver at 7 p.m., the temperature rose from 101°4' to 104° at 9 p.m., after which it fell at 11 p.m. to 101°.

The tongue became red and irritable. The bowels were natural. The cardiac pulsations occasionally intermitted, but the murmurs remained as before. There was a rigor on the 23rd at 6 p.m.; and another on the morning of the 25th, with corresponding rises in temperature; another slight rigor in the afternoon of the 26th, the temperature reaching 105° at 10 p.m., although quinine was given at 9 p.m. The pulse became more and more markedly intermittent, and generally retained its thrilling character. Her aspect during this time was striking; very sallow and thin, careworn, irritable, and nervous.

April 4.—She had a fit of coughing in the night. Next morning the resonance at bases of lungs was found to be impaired, and fine crepitant râles became audible; vocal resonance diminished. She became more restless, more sallow and pale.

11th.—10 a.m., temperature 102°4'; pulse 104, irregular, and at times thrilling. Heart's apex felt beating in fifth left interspace, three inches from mid-sternum; impulse very diffused, at times thrilling. Apex bruit as before; basic is louder, and can be heard to right of sternum as far as nipple. Systolic murmur audible over whole of both backs. On each side impaired resonance, diminished vocal fremitus, and resonance for about a hand's breadth from the angle of scapula. Occasional crepitant râle here and in interscapular regions.

15th.—5.30 p.m., temperature 101°4', pulse 100. Pulse at wrist imperceptible. Had two shivering fits this afternoon, and is now in a very depressed state, sweating freely. She feels hot, but the extremities are cold. There is much dyspnoea. Face anxious, and has a pained expression. The temperature fell to 95°, and remained there for four hours, during which time she lay in a collapsed state, no pulsation being felt in right brachial and radial arteries. She hardly rallied from this state, and died in the course of the next day.

Post-mortem Examination.—Liver greatly depressed. Passive serous effusion in each pleural sac and in pericardium. A small patch of recent inflammation in the left pleura. The heart appeared much enlarged. Its right chambers were filled with blood, and black clot was moulded to their walls; the left ventricle being semi-contracted and containing scanty clot. Tricuspid valve rather opaque; orifice four inches and a half in circumference. Walls of right ventricle pale and tough, a quarter of an inch thick. Pulmonary valves natural. Left auricle almost empty; its endocardium opaque and thick, and on its posterior wall roughened by a patch of vegetations reaching from the mitral orifice almost to the pulmonary veins. Mitral valve was the seat of large warty masses of vegetation, most exuberant on the anterior cusp, which was of nearly its normal proportions. These vegetations formed an irregular fringe to the cusp, a quarter to three-eighths of an inch long, which, on laying open the heart, was folded upwards into the auricle (and had doubtless excited the auricular endocarditis by friction). The vegetations were very firm, were partially encrusted by recent clot, and in some parts they had a greenish colour. The chordæ tendineæ were thickened. Some of those which sprang from the smaller of the two main papillary muscles were buried in a mass of vegetations and did not reach the valve; whilst another, from the other muscle, also wholly detached from the cusp, depended freely (it was one inch long) into the ventricle. The aortic valves were healthy. The lungs were crepitant

and oedematous, but free from infarctions. The liver was large (eighty-four ounces) and of a peculiar square shape. It was chronically congested (nutmeg) and fatty. The spleen was large, measuring six inches by three inches and a half, and weighing nine ounces and three-quarters, pale and soft. It was the seat of two small old yellow infarcts. The kidneys, which were tough and showed evidence of cortical wasting, were scarred on their surfaces, as if, at some long prior date, they had been the seat of embolism.

Remarks.—In several respects this case presents instructive differences from No. 1, although it falls under the same variety of septic endocarditis, these differences not being marked enough to outweigh the general clinical and pathological resemblance. In this case there was a definite history of rheumatic fever eleven years previously, and it seems probable that at that time she had an attack of mitral endocarditis. But, as so often happens, the heart accommodated itself to the disorder of function entailed by the presence of mitral thickening, the ventricles hypertrophied, and she enjoyed good health, until, at the period of the climacteric, symptoms of cardiac disease first manifested themselves, the compensatory action no longer being maintained. At any rate, at this time—i.e., three months before admission, or nearly five months before death—signs of cardiac disease appeared. These signs predominated on her admission, and all tended to show (the violent arterial pulsations and character of the pulse confirming it) that she was suffering from serious heart-disease. Here, then, is a marked contrast to Case 1, who, previous to admission, had suffered for some weeks from septic fever, and who, during the ten days he was in the hospital, exhibited mainly these septic symptoms, there being an absence, both in his history and previous symptoms, of cardiac disease. In him, the presence of a soft, systolic bruit, and the occurrence of a thrill at the apex, were the chief and almost the only indications of cardiac affection. In the present case, however, the septic symptoms—rigors, irregular pyrexia, and sweating, with profound constitutional disturbance, physical and mental—became more prominent as time went on. In No. 1 the cardiac symptoms were overborne by those of septic fever; in No. 2 the relation was (at any rate at first) reversed. The following are a few of the chief points special to this case:—

1. The cardiac murmurs indicated not only mitral obstruction and regurgitation, but also some aortic obstruction. At the post-mortem examination, however, the mitral valve alone was the seat of disease, both cusps being involved. The cause of the soft systolic bruit at the aortic cartilage lay doubtless in the long detached chordæ, covered with vegetations, that projected freely into the cavity, and must have been swayed to and fro by each ventricular contraction. The absence of a diastolic bruit (the second sound was remarkably pure and sharp) certainly indicated that the aortic valve, if diseased, was not much altered.

2. The valvular lesion was very characteristic. There was first of all a thickened mitral valve and chordæ, probably left by the rheumatic attack eleven years before. Upon this recent endocarditis was grafted, as usually is the case, and as No. 1 also illustrates. The vegetations were very exuberant and firm, and coating the chordæ tendineæ, some of which were completely ulcerated through. Some might consider that the true reading of both this case and the preceding is that of a primary rupture of chordæ to which the inflammation was consecutive. In neither case does the clinical history bear out such an interpretation; and it seems far more probable that the tendinous chords were so damaged and softened by inflammation (probably ulcerated) that their rupture was a comparatively late event: it was secondary, and not primary, to the endocarditis. The large patch of auricular endocarditis was without doubt produced by direct contact of the valvular vegetations swept back into the auricle with each systole; and it exhibits a later stage of the change seen on the auricular lining membrane in Case 1 in its initial stage.

3. It is noteworthy that no embolisms of recent date were found in the organs, but only a few yellow infarcts and a puckering of the surface of the kidneys. The spleen, however, was large and soft as in septicæmia, and its condition was the main post-mortem evidence of blood-infection.

(To be concluded.)

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THE MEDICAL TIMES AND GAZETTE is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.

Medical Times and Gazette.

SATURDAY, MARCH 18, 1882.

REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD FOR 1880.

THE ways and methods of Government departments are, no doubt, in some points incomprehensible by the uninitiated, and we can therefore believe that some plausible excuses unknown to us might be advanced for the delay that occurs in the publication of the Annual Report of the Medical Officer of the Local Government Board. At the same time we must insist that whatever real or supposed difficulties may stand in the way of a quicker publication of these reports, it is highly desirable that they should be overcome. The Report now before us, for the year 1880, was not issued to the public till the middle of January of the present year, and consequently the interest in many of the papers contained in the volume has been discounted by the publication months ago of the individual reports of the inquiries now published together. It must be said, however, that not much of the delay of which we complain can be laid at the door of the Medical Officer of the Local Government Board, as his Report to the President is dated June, 1881. This, Dr. Buchanan's Report, does not deal at length with any of the public health subjects inquired into during the year in question. It speaks shortly of the operations of the Board of Guardians in the promotion of public vaccination which were supervised by the medical inspectors during the year 1880. The inspection extended to 303 unions, comprising 1498 vaccination districts. Of the 1379 public vaccinators appointed to those districts, 76 per cent. were found to have obtained results of first-class excellence: and awards of money, amounting to a total of £12,762, were made from the Parliamentary grant to 60 per cent. of the 1379 who, having been in office for a year and upwards, had in all respects strictly performed their duties. These percentages are, it is added, identical with those of the year 1879. The National Vaccine Establishment distributed during the year 31,413 charges of lymph to 10,301 applicants, and there was occasion for increasing for awhile the staff of the establishment furnishing lymph. From such supple-

mentary sources about one-twentieth of the total number of charges were derived.

It must be noticed that the "Digest of the Vaccination Officers' Returns with regard to Children whose Births were Registered," now published, is in respect of the year 1878. It exhibits the vaccination of the country in "almost identically the same aspect as during the years immediately preceding."

Dr. Buchanan next refers, also very briefly, to his own investigations in 1880 into the establishments for the supply of animal lymph at the Hague, Amsterdam, Utrecht, Rotterdam, and Brussels, and tells of the determination of the Local Government Board to establish an animal vaccine station in the metropolis. It is not much comfort to be told that Dr. Cory, the director of the intended establishment, "will be in a position to commence calf-to-calf vaccination as soon as premises suitable for the purposes of the institution have been secured." Dr. Buchanan has endeavoured to find some newly occurring case of spontaneous vaccinia in the cow, from which to commence a series of calf-to-calf vaccinations. But though he has taken every opportunity that presented itself, and has, with the assistance of the late Mr. Ceely, Professor Simonds, Dr. Klein, and others, put several suspected cases of vaccinia to the proof, all the experimental inoculations have failed to produce true cow-pox; and he states that it will probably be necessary to rely on lymph from some foreign station, and proposes to give the preference to lymph cultivated at the Hague by Dr. Carsten and his colleagues. Appendix B, No. 2, of the Report before us gives a report by Dr. Klein into a case of supposed cow-pox, produced by what had been regarded as casual horse-pox. The strictest examination was instituted, and the result was the decision that the disease in question was neither horse-pox in the horse nor cow-pox in the cow; but probably the affection known on the Continent as *dermatitis pustulosa contagiosa*. The inquiry conveys a very useful and not unneeded lesson on the importance of great caution in accepting as horse-pox or cow-pox cases of pustular eruptions on those animals respectively.

Dr. Buchanan makes some interesting and suggestive remarks on the more important of the special inquiries made by the Medical Inspectors during the year. As regards Dr. Ballard's inquiry into the nature and circumstances of the Welbeck sickness, he notes that microscopical examination showed that the hams partaken of were infested with a peculiar and hitherto unknown bacillus; that this same bacillus was found abundantly in the kidney of a person who had died of the disease; that small animals fed on portions of suspected ham fell ill of a complaint very like that which had attacked the seventy-two persons affected at Welbeck; and that bacilli taken from two of the affected hams were cultivated in white of egg, with the result of endowing the cultivating fluid with the property of producing similar disease. But in the cases of intentionally produced disease, bacilli could not always be found in the diseased tissues. In the Nottingham epidemic, in the early part of 1881, it will be remembered that fifteen persons were affected. The case very closely resembled the Welbeck outbreak. One of the fifteen died, and microscopic examination discovered in his body abundant bacilli similar to those found in the Welbeck case, and inoculation and cultivation experiments gave almost exactly similar results. With Dr. Ballard's report an account of Dr. Klein's pathological observations is given, and Dr. Buchanan takes the opportunity to express his sense of "the peculiar qualification that Dr. Klein has attained, by his researches made for the Board into the minute anatomy of healthy and diseased structures, for judging as to the nature and significance of morbid appearances in these exceptionally difficult cases."

The outcome of Mr. Spears' extended and full inquiry into the occurrence of "wool-sorters' disease," or anthrax, has been fully noticed in our columns long ago.

The special inquiries made on all accounts by the Board amounted to forty-four, and arose in about half the cases from some local request or report. Some districts were inspected for the direct purpose of learning, for the information of the Board, how medical officers of health were performing their duties, and plentiful illustrations were found, we are informed, "of the unsatisfactory discharge of the duties of medical officer of health by gentlemen having no other qualification for those duties than that they already held some different medical appointment within the district." We must leave the consideration of the rest of the Medical Report of the Board to a future occasion.

THE CASE OF DOCTOR LAMSON.

On Tuesday this case, which well deserves more than passing notice, suddenly collapsed. No witness was called on behalf of the accused, and he was left to the jury with only the wordy shelter of his advocate's pleading. But there followed a summing-up on the part of Mr. Justice Hawkins so clear, so concise, and yet so damnatory, that we have seldom read its like. The charge was that of poisoning a brother-in-law with aconitine; and in certain respects, since the time of Palmer for poisoning Cooke with strychnine, it is the most remarkable criminal trial which has occurred in this country. Abroad, two others might be said to equal it in interest—the one, that of De la Pommerais for poisoning the widow Pauw with digitalin (and with this Lamson's case has most alliance); and that of the Count Bocarmé for poisoning his brother-in-law with nicotin—the case which gave rise to the now well-known Stas' process, employed in a modified form on the present occasion.

If it were possible, the best way for us to deal with the case would be to entirely separate the general from the special evidence, but this can hardly be done. There are, however, certain general facts which may be dealt with at once, leaving the history of the poisoning to be dealt with afterwards. George Henry Lamson, now condemned to death, is only twenty-nine, and is of American parentage, his father being chaplain at the American Consulate in Florence, and apparently well off. He qualified at Edinburgh (but does not appear to have ever been resident there) so late as 1878. Apart from this, he gave himself, amongst other honorary titles, that of M.D. Paris 1870, together with orders and what not from Russia, Turkey, Servia, and Roumania, to say nothing of the services he says he rendered to the French in 1870-71. It has been already proved by the Medical Society of Bournemouth that certain portions of these qualifications and ornamentations were falsely assumed, and thus we get the first insight into the man's character. He married the daughter of a commercial traveller, who had some money with her, and, according to her father's will, more coming as the death of each member of the family occurred. At last only three of the family were left—two married (Mrs. Lamson and another), and the deformed boy whose death has given rise to the present trial and verdict. This boy had in his own right some £3000, giving him an income of over £100, but on his death the capital sum would be divided, giving about £1500 to Lamson. Even in Bournemouth, where he had settled as a homœopathic practitioner, Lamson had been in great straits; his furniture had been seized, and he himself was compelled to leave, still in debt. After this he seems to have entered upon the business of borrowing and giving cheques, invariably returned marked "no assets," with excuses following, and the like. By means of one of these cheques, backed by an adventurous medical

student, he obtained money enough to go to Paris in December last, but in the interval he found time to visit his deformed brother-in-law at Wimbledon, and to administer that poison which was to bring him the welcome £1500. Such being the antecedents of the man, and such the fearful pressure upon him for money easily to be obtained in one way, we may now turn to the evidence directly relating to the poisoning.

The history of this part of the case relating to the boy's illness and death is, professionally and scientifically, the most interesting, as it will inevitably hereafter be cited as a standard whenever and wherever poisoning by aconitine is in question.

In all cases of poisoning the question of time must come in, and it is very important that this is in the present case very clearly settled. The time of Lamson's arrival at Wimbledon, where Percy John, his brother-in-law, was residing, is not of great importance, but the time of his departure, whence the illness may be said to date is absolutely fixed by the boy's schoolmaster. Whilst in the master's house, Lamson produced various things from his bag—among others, a cake, and two boxes of the capsules now familiar enough in our profession. Some wine was offered by the master to his visitor; and in order to take off its intoxicating effects, as Lamson said, some powdered sugar was brought in. One of the empty capsules was swallowed by the master of the house, and then one which Lamson pretended to fill with sugar was given to the boy, and promptly swallowed. Five minutes after this took place, Lamson rose to take leave, so as to catch the 7.21 train, and left accordingly. Some twenty, or at the outside thirty, minutes afterwards the boy began to complain of heartburn. Soon he got worse, and between eight and nine o'clock he was taken to bed. From this time the symptoms got worse and worse till he died, about twenty minutes or half-past eleven—that is to say, about four hours or thereby after taking the capsule given to him by Lamson.

There is some little doubt with regard to the cause of the onset of these symptoms. So-called quinine pills containing aconitine were found in the house, but it was hardly possible for the boy to reach them that evening. Nevertheless, the boy attributed his illness to a quinine pill which his brother-in-law had given him, and the symptoms were the same, he said, as he had already experienced at Shanklin after swallowing a quinine pill given by the same individual. Well, it was sworn by the master that the capsule had been filled with sugar before the boy's eyes; and we can only conceive that he called this a quinine pill from the effects produced being similar to those he had already experienced after taking what was called a quinine pill at that time.

Next as to the symptoms. We have seen that the first thing complained of was "heartburn." The boy was taken upstairs and put to bed; but somehow or other he made his way to the water-closet, where, or in the adjoining bathroom, he was found vomiting and in great pain. The nature of this pain does not seem quite clear; it is said to have been "in his stomach." But it must not be forgotten that the boy was the subject of marked curvature of the spine, producing paraplegia, which was said to be growing worse. Vomiting in such a subject is not the light matter it may seem to those who have got healthy frames; and still more serious would this be when the vomiting, from whatever cause, was both violent and prolonged. This of itself might be sufficient to cause death.

But there were other symptoms which suffice to remove the case from this simple category of death by vomiting. The boy persistently complained of his skin feeling "as if all drawn up." What this means is not easy to say—

perhaps "goose-skin" in an exaggerated degree—but that might be accounted for by the boy's remaining for some time in a cold water-closet on a December night. But there was also, it is said, a constriction of the throat and an inability to swallow. Moreover, the feeling of "drawing of the skin" seems to have been specially referred to the face. He was "violently" restless, necessitating his being held in bed so as to prevent him from hurting himself. About ten o'clock a quarter of a grain of morphia was injected beneath the skin of the belly. This relieved him for a time, but the pain returned, and again morphia (a quarter of a grain) was injected, but this time with little benefit. The boy was perfectly sensible, for he asked that this should be done. About ten minutes past eleven he became a little unconscious, and began to wander, his breathing became slower and slower, the heart's action weaker and weaker, till he died, as already said, about twenty minutes past eleven.

The post-mortem appearances were not very striking. Those of most importance were found in connexion with the heart and stomach, and they are very imperfectly recorded. The heart is described as "almost entirely empty and flaccid," but otherwise healthy. There was a small quantity of fluid in the pericardium. The liver was normal in size, but intensely congested. The kidneys were normal in size, but considerably congested. The spleen was also much congested, but normal in size. The mucous membrane of the stomach was congested throughout, and on the under surface, near the larger end of the stomach, were six or eight yellowish-grey patches, a little raised, about the size of a small bean; and towards the smaller end were two or three similar smaller spots. The stomach contained three or four ounces of dark fluid and the duodenum was congested. From all this we can only say that the stomach and duodenum showed signs of much irritation. Of the heart from the record we can form no conclusion.

Before proceeding to the chemical evidence, we cannot help remarking on the slovenly way the various substances were dealt with before they finally reached those who were called upon to examine them. Something of the kind we have had to reflect upon before, but it cannot be too often urged that, when life and death are hanging in the scale, every possible precaution should be taken.

But as regards the chemical evidence itself, which to admire most—the simplicity of the professional experts on the one side, or the weakness of the defence on the other—we hardly know. Taken alone, it appears to amount to neither more nor less than this—that a man's life may depend on the peculiarity of taste or feeling which any given individual may possess. A test, as we hold it, should in these cases be something patent to all men, and not to one only. There are hundreds of cases where, with little difficulty, men and women may be made to feel, taste, and see anything.

Then there is the physiological evidence,—and what does that prove? No more than that certain mice, having had certain materials obtained from the boy's body injected into their bodies, died not long after; and with symptoms like those of which mice died after being injected with aconitine. But at the best this can only prove death under the given conditions, and nothing appears in testimony to show that the real cause of death, either of man or mouse, was absolutely aconitine.

We do not think that the scientific evidence asserted for itself the position which it might have done. It only helped to fill up a lacuna—a very important one—left by that which common witnesses gave. What secured Lamson's conviction, in the justice of which all must agree, were chief of all his own egregious folly and his sad necessity. The

motive was there—to get the money he wanted so badly; the means were there—the poisons, especially the unusual aconitine, which he had openly purchased; the access was proved, and even the administration of the poison was in evidence. Illness and sudden death followed, from no known cause except the poison. The symptoms corresponded with those of an irritant poison; the post-mortem examination confirmed this; the chemical examination showed a substance which produced a peculiar sensation about the mouth, and something which when injected underneath the skin very soon killed mice.

THE WEEK.

TOPICS OF THE DAY.

THE Lord Mayor recently presided at the Mansion House over the first annual meeting of the East London Nursing Society. The working of this Society is slightly different from the method adopted by other similar bodies. It was originally founded in 1868 with the object of providing nurses for the sick poor in their own homes in the East of London. It worked for five years in combination with the Metropolitan and National Nursing Association, but it has now reverted to its original independent position. The nurses are all required to receive a thorough hospital training, and are placed under the superintendence of a matron at the Central Home in Philpot-street, Commercial-road East. Each nurse lives in the district in which she labours, and works under the district or parish clergyman, attending all sick cases named by him, and reporting to him any application which has been made to her, or any case which she has discovered in her rounds. Wherever a medical man is in attendance on a particular case, the nurse has to strictly follow his orders. In each district there is an assistant lady who undertakes to see the nurse, and look over her register every week, and also visit her patients. The Society supplies the resident matron, and the nurse's wages and dress; on the other hand, the incumbent of the district, with the help of the assistant lady, provides furnished lodgings for the nurse, and both unite their efforts for the purpose of obtaining proper diet and the necessary comforts for the patients. The London Hospital authorities have admitted the nurses to a course of lectures now being given there. A disinfecting-room for clothing is attached to one of the nursing homes, and has proved of great service during the recent epidemic of small-pox, throughout which the nurses rendered valuable aid amongst the sick poor. One nurse alone attended seventy cases of small-pox in three months, besides twenty-eight cases of other contagious diseases. The parishes in which nurses are engaged are St. George's-in-the-East, Stepney, London Docks, Whitechapel, Shadwell, and Poplar. In ten months last year the serious cases attended by the nurses were 777, the slight 1944; and the number of visits paid was 20,306. The Bishop of Bedford and many of the East-end clergy addressed the meeting, and solicited aid for the Society, which would appear to have done much good work.

In the case of *Robinson v. the Fulham Local Board*, Mr. Crossley, Q.C., recently made application to Vice-Chancellor Bacon, in the Chancery Division of the High Court of Justice, for an order for the discontinuance of the action. It will be remembered that the defendants in this action, during the small-pox epidemic of last year, erected a small temporary hospital for the reception of small-pox patients, and were intending to construct a permanent building for the same purpose on Little Wormwood Scrubs. An application was made to the Master of the Rolls to restrain the building of the proposed hospital, on the ground that it would

be dangerous to the health of the inhabitants of the district, but the matter was ordered to stand over till the trial of the action. It was now stated that the intention to build the hospital had been abandoned in consequence of the strenuous opposition offered by the inhabitants of the locality and the Great Western Railway Company. His lordship now made the order asked, without any direction as to the payment of costs, refusing to allow the defendants liberty to appeal.

With regard to the notices that have appeared in our columns in respect of a new Cambridge Local Examination, it may be well to explain that the Local Examinations and Lectures Syndicate of the University of Cambridge had recently under consideration communications from the Executive Committee of the General Medical Council on the subject of the preliminary examination for persons wishing to register as medical students, and also a memorial on the same subject from teachers of medicine and natural science in the University. After careful consideration of the whole question, the Syndicate expressed an opinion that it would be unwise not to make some effort to meet the desire expressed by the Medical Council "that the general education of intending medical students should be, in great part, under the influence of the Universities"; they are also of opinion that it would be convenient to increase the facilities for obtaining exemption from the "previous examination," and they therefore recommend that the Syndicate be authorised to hold, in August or September in the present year, and, if they think fit, in subsequent years, an additional examination in subjects appointed for the examination in the December next following, and at such places as the Syndicate may from time to time determine.

The Clerk of the Wandsworth Board of Works attended last week at the local police-court in support of adjourned summonses with respect to a well which supplied houses with water in Spring-gardens, Putney. Dr. Muter, the public analyst, was called in respect of his analyses, three having been made. He said he was of opinion that the well was supplied from the surface. The water was three times as bad as the worst London water. In cross-examination, the witness admitted that the water had improved since he had made the former analysis, but that arose in consequence of the well having been cleaned out. Dr. Walker, the medical officer of health for the district, gave a description of the position of the well, which was in a lower corner of the yard. He was of opinion that the water was injurious to health. Cases of scarlet fever which had occurred there had been reported to him. He did not know that members of the London Rowing Club used the water. The well was fed by percolations and not from the surface. Mr. Golding, who defended, said he had a certificate showing that the water was of a good character; he wished for an adjournment to call Dr. Redwood. John Fry deposed that he had drunk the water for forty years, and had fared well upon it. Other witnesses gave similar evidence. Eventually the magistrate granted a further adjournment.

The recklessness and selfishness of parents in sending to school their children while only just recovering from infection, has been forcibly illustrated in two townships of the Clitheroe Union, where an exceptionally virulent epidemic of measles is raging. It is stated that scarcely a single house in either is free from the disease, and yet the first case occurred so recently as the beginning of the year. This, moreover, was a solitary instance, and with proper precautions the malady might have been easily confined within the narrowest limits; but the most careless indifference seems to have been evinced by the entire population; and even later on, when a pronounced epidemic had set in, children presented themselves at school

with the "marks of measles" on their faces. It has at last been decided to close all the schools in the district, and to issue a notice that a fine of £5 will be imposed on the parents of any child suffering from infectious disease that appears in public. It seems, however, to have been overlooked that infection is often spread by the parents of infected children, who continue their daily routine of life throughout their children's illness, and thus carry disease to all with whom their work brings them in contact.

From more than one quarter it is reported that Australia possesses a valuable remedy for asthma, which might with advantage be more generally known. A species of *Euphorbia* indigenous to Queensland, and designated *E. pilulifera*, is used locally with the best results in asthmatic and bronchial affections. An ounce of the leaves of the plant placed in two quarts of water, and allowed to simmer until the quantity is reduced to one-half, affords a medicine which, taken a wineglassful at a time twice or thrice a day, is credited with the power of relieving the most obstinate cases of asthma, as well as coughs and ordinary chest affections. The leaves may easily be gathered and dried, and will keep for a considerable length of time. Other species of the *Euphorbia* have already acquired some reputation for their medicinal virtues; thus the leaves of the *E. nereifolia* are prescribed as a purgative by the native practitioners in India, while the root of the *E. ipecacuanha* is said to be equal in all respects to the true ipecacuanha.

The adjourned annual meeting of the Governors of the London Fever Hospital has been held since we wrote upon the subject last week, Mr. Hills presiding, in the absence of Lord Devon. The report laid before the meeting showed that the year 1881 had been characterised by an unusual prevalence in the metropolis of typhoid fever of a very severe type, and the number of cases of disease admitted exceeded the number in any one year since the exclusion of pauper patients, who are now, of course, provided for in the Asylums Board Hospitals. The total number admitted during the year was 915, which, with those who remained at the end of the previous year, made 1018 treated during 1881. Of these, 864 were cases of infectious disease—typhus, scarlet fever, measles, typhoid, and diphtheria. It was announced that out of the remaining small capital of the Hospital the sum of £1500 had been sold out to meet the deficit caused by the falling-off of subscriptions, and that it would be necessary, as soon as they could be cleared of patients, to close two wards. It was urged, with much reason, that the maintenance of this Hospital should be regarded by the public as an insurance against great danger and serious loss; and it is satisfactory to be able to record that since Lord Devon's appeal was published, nearly £300 has been received in aid of the institution.

We learn from Brighton that at the annual meeting of the Royal Alexandra Hospital for Sick Children it was resolved to name one of the wards "The Taaffe," in recognition of the valuable services rendered by the Senior Physician with respect to the new building. The Sanitary Committee of the Town Council have resolved to recommend a system of registration of cases of infectious disease, and have decided that the Local Government Board be moved to introduce a measure into Parliament to render such registration compulsory.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At an ordinary meeting of the Council of the Royal College of Surgeons, held on Thursday, the 9th instant, it was resolved that a humble address of sympathy and congratulation should be presented to Her Majesty on her late providential escape from the attempt on her life. The formula for the alteration of the standing rule relating to

referred candidates for the primary membership examination was approved. In the future a candidate who has been referred for three months will be required to produce a certificate of his having pursued his anatomical and physiological studies during the three months to the satisfaction of his teachers, and not necessarily, as formerly, of his having dissected for that period; and a candidate referred for six months will have to present a certificate that he has dissected for three months, and continued his anatomical and physiological studies throughout the six months. Mr. Christopher Heath's motion, to the effect that no candidate shall be admitted to the pass examination for the membership till after the expiration of two years from the time of his passing the primary examination, was referred to a committee, consisting of Messrs. Birkett, Bryant, Heath, Holmes, Smith, and Wood, for consideration and report to the Council. Messrs. W. Martin Coates, of Salisbury, who became a member of the College in 1833, and Alexander Harkin, of Belfast, who became a member in 1840, were elected to the fellowship.

NAVAL MEDICAL DEPARTMENT.

THE following is a list of the successful candidates for appointments as surgeon in the Royal Navy at the competitive examination at Burlington-gardens, on February 20 last, and the following days:—W. G. K. Barnes, 2260 marks; R. J. M'Cormack, 2075 marks; W. G. C. Smith, 1965 marks; S. Farmer, 1925 marks; A. D. Peyton, 1925 marks; J. S. Wray, 1875 marks.

CAMBRIDGE LOCAL EXAMINATIONS.

NOTICE has been given that the Cambridge Local Examinations, by means of which students who desire to register as medical students in October may pass the preliminary examination required by the Medical Council, and students proposing to enter the University in October may obtain the certificates which exempt from the Previous Examination ("little go"), will be held on Monday, September 4, in Cambridge and London, and at such other places as the Syndicate may determine. The Syndicate would, we believe, endeavour to make arrangements for an examination in any town in which there were twenty-five candidates. The examination for the certificates which exempt from the Previous Examination of the University is somewhat more difficult than that examination itself is; but the students who succeed in obtaining the requisite certificates, especially those for the "additional subjects" as well as for the "Previous Examination," will save time and will derive a distinct advantage throughout their University course, and this will be particularly the case with those who intend to study Natural Science and Medicine. Forms duly signed must be sent in before August 1. They can be obtained, for Cambridge, from Rev. G. F. Browne, St. Catherine's College; and for London, from R. St. J. Corbert, Esq., 10, Portman-street, W.

PREVENTION OF FIRE IN WORKHOUSES.

A CIRCULAR letter dealing upon the "danger from fire in workhouses" has just been addressed by the Local Government Board to boards of guardians. It is a rather tardy warning on a subject to which we believe sufficient consideration has not hitherto been given; and it is to be hoped that the dangers pointed out and the practical measures suggested for their removal or prevention will receive from the local authorities that attention which the importance of the subject imperatively demands; otherwise we may well fear that those dangers may be exemplified in a frightful manner by the occurrence of some unlooked-for and dreadful calamity.

THE PARIS WEEKLY RETURN.

THE number of deaths for the ninth week of 1882, terminating March 2, was 1337 (687 males and 650 females), and among these there were from typhoid fever 36, small-pox 11, measles 23, scarlatina 3, pertussis 5, diphtheria and croup 64, dysentery 1, erysipelas 15, and puerperal infections 5. There were also 76 deaths from tubercular and acute meningitis, 216 from phthisis, 59 from acute bronchitis, 126 from pneumonia, 90 from infantile athrepsia (28 of the infants having been wholly or partially suckled), and 46 violent deaths (38 males and 8 females). The number of deaths registered is below the mean of the last four weeks, and compared with those of the eighth week there is a slight diminution of deaths from small-pox, measles, and pertussis, and a slight increase of those from typhoid fever and diphtheria, those from erysipelas also having increased from 9 to 15. The births for the week amounted to 1354, viz., 680 males (459 legitimate and 221 illegitimate) and 674 females (492 legitimate and 182 illegitimate): 100 infants were born dead or died within twenty-four hours, viz., 54 males (38 legitimate and 16 illegitimate) and 46 females (30 legitimate and 16 illegitimate).

THE NECESSITY FOR ISOLATION IN DIPHTHERIA.

THE Sanitary Committee of the St. Pancras Vestry recently instructed the Medical Officer of Health for the district (Mr. Shirley F. Murphy) to communicate with the various sanitary districts of the metropolis on the subject of diphtheria, asking their opinion as to the necessity for the isolation of persons suffering from this disease, and the propriety of treating such cases among non-infectious patients in general hospitals. Mr. Murphy having obtained the necessary information, has embodied it in a report which he has submitted to the Sanitary Committee, and which has now been printed. Twenty-seven sanitary authorities replied to the circular on the subject addressed to them by Mr. Murphy: nearly all of them recognised diphtheria as a dangerous infectious disease requiring isolation, and condemned the practice of treating patients suffering from it in general hospitals. In no case, however, had any vestry been applied to by the authorities of any general hospital to relieve them of cases of diphtheria. With reference to the course adopted by other vestries in dealing with the disease, the replies received showed that only ten had taken any steps to isolate cases of diphtheria; but it should be added that the apparent negligence of some local authorities is simply due to the fact that cases of this disease rarely become known to the various sanitary departments until death has taken place. In conclusion, Mr. Murphy reminds the Committee that at the present moment he is prevented by a resolution of the Vestry from giving the opportunity to families to protect themselves from the spread of the disease, by enabling them to send any member suffering from diphtheria to the London Fever Hospital, notwithstanding a recommendation of the Sanitary Committee that this opportunity should be given; and he trusts that the Committee will see their way to induce the Vestry to give instructions that cases of diphtheria shall be dealt with in the same manner as other cases of infectious disease.

THE POLLUTED STATE OF THE RIVER THAMES.

A MEETING of the Committee which has been recently formed for the protection of the Lower Thames from sewage was held in the Cannon-street Hotel on Tuesday last. Professor Thorold Rogers, M.P., presided, and Lord Henry Lennox, M.P., Captain Aylmer, M.P., and many gentlemen representing river interests, were present. The chairman mentioned, as an evidence of the growing magnitude of the evil

they desired to obviate, that the daily discharge of sewage from the metropolitan area was 180,000,000 gallons, or 30,000,000 cubic feet. Mr. Bennoch, director of the London Steamboat Company, said this meant the precipitation of about 300,000 tons of solid matter yearly in the bed of the river and on its banks, causing an intolerable stench in hot weather. He moved—"That, in the opinion of the Committee, a Royal Commission should be appointed, or a Parliamentary inquiry instituted, for the investigation of the present state of pollution of the river Thames from sewage, and the means to be taken to remedy this alarming and growing evil." Mr. Hinton, Master of the Watermen's Company, who seconded the resolution, spoke strongly of the prejudicial effects which the state of the river had on the watermen; and Captain Gillet, of the *Warspite* training-ship, who supported the resolution, declared that the river below Greenwich was for two months yearly neither more nor less than floating sewage. The resolution was carried unanimously; and on the motion of Lord H. Lennox it was resolved to appoint an executive committee to take the necessary steps to give effect to the first resolution, and to adopt such other measures as they might think desirable in furtherance of the object in view. The executive committee was then appointed, comprising representatives of the parties interested, and including Lord Henry Lennox, M.P., and Viscount Lewisham, M.P.

NEPHRECTOMY BY ABDOMINAL SECTION.

MR. KNOWSLEY THORNTON removed the right kidney from a young woman at the Samaritan Hospital on Saturday last. The case was one of pyonephrosis, and the kidney was incised and drained through the loin for a month before its complete removal was decided upon. The kidney was removed by abdominal section, the incision being made outside the rectus abdominis, as recommended by Langenbuch, of Berlin, in the discussion on Nephrectomy at the Congress. Mr. Thornton found great advantages from this incision, as compared with either the ordinary median incision or the lumbar section. The patient was progressing very satisfactorily four days after the operation, there having been less fever and constitutional disturbance than there often is after an ordinary ovariectomy. The patient from whom Mr. Thornton removed an extra-uterine foetation by abdominal section at the Samaritan Hospital a fortnight ago is quite convalescent.

THE EPIDEMIC OF MEASLES IN EDINBURGH.

THE outbreak of measles which has occurred in Edinburgh during the last few weeks has extended to Portobello, and there has spread so rapidly as to necessitate the closing of the public schools. Out of 700 pupils on the roll of the Board Schools, nearly 300 were absent on account of some of the family being affected with the disease. It has spread most rapidly among the children of the working-classes, but is, fortunately, of a very mild type. A solitary case of small-pox was reported in Edinburgh last week. It was, however, of a most malignant type, and proved fatal, but, so far, the authorities have been unable to trace the origin of the infection.

PATHOLOGICAL SOCIETY OF DUBLIN.

At the meeting of this Society held on Saturday, March 4, 1881 (the President, Dr. William Stokes, in the chair), Dr. J. M. Finny showed a remarkable example of primary cancer of the œsophagus, with secondary deposits in the left lobe of the liver and gastric glands. The patient, a ship-carpenter, fifty-two years of age, had been ill from October last, complaining chiefly of pain in the epigastrium and of difficulty of swallowing. Death was brought about by hæmatemesis.

The œsophagus was dilated and extensively ulcerated from the place where it is crossed by the aorta to within a quarter of an inch of the cardiac orifice. A foetid abscess was found in the posterior mediastinum, causing pleural adhesions and involving the posterior portions of the lungs, which were hepatised. The diaphragm was not affected, but a cluster of glands near the lesser curvature of the stomach was much enlarged, and a typical nodule of recent cancer existed in the left lobe of the liver. The stomach was free from disease, but its surface was in places hyperæmic and of a puce colour. Professor Purser exhibited a microscopical specimen illustrating the etiology of the dissemination of tubercle. Tubercular foci were visible in the inner coat of the pulmonary veins—a mode of infection which had been described by Weigert in *Virchow's Archiv* for 1879. Dr. Purser alluded to Ponfick's earlier researches on tuberculosis of the inner coat of the thoracic duct as a cause of dissemination of the tubercular virus. Professor Bennett, for Dr. Travers Barton, Surgeon to the County Donegal Infirmary, Lifford, showed a large fibro-lipoma, which Dr. Barton had removed from the abdominal wall of a strong, middle-sized man, thirty years of age. The tumour, which had appeared seven years ago as a small lump beside the navel, grew rapidly during the past six months. It was oval in shape, extended from the umbilicus to the left anterior superior spine of the ilium, and measured twenty-three inches round the base. It was composed chiefly of fat and fibrous tissue, portions of which were degenerating into a round-celled sarcoma.

THE ROYAL INFIRMARY, EDINBURGH.

A VACANCY for the office of Assistant-Physician to the Edinburgh Royal Infirmary was announced at the meeting of the Managers on Monday last. This occurs in consequence of the Senior Assistant-Physician, Dr. Wyllie, having been appointed Physician in the place of Dr. G. W. Balfour, whose term of office has expired. There are already several candidates spoken of—Drs. Byrom Bramwell, Brown, Gibson, James, and Moinet. The applications must be lodged before the 25th inst., and the appointment will be made on the 27th.

THE METROPOLITAN WATER-SUPPLY FOR JANUARY LAST.

THE report of the Water Examiners for the metropolis rendered for the month of January last shows a slightly improved condition of affairs. Colonel Bolton, in referring to the state of the water impounded by the various companies previous to filtration, reports that the condition of the water in the Thames at Hampton, Molesey, and Sunbury was very bad during the whole of the earlier part of the month under notice. On the 15th, however, it improved in quality, and on the 20th it became clear, and remained so for the rest of the month. The river Thames was, he says, in a state of flood during the greater part of the month. The water in the river Lea, on the other hand, was in a bad condition during the whole of January. Turning to the report of Dr. Frankland, we find that the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies, although of better average quality than in the previous month, was considerably below the standard of that supplied during the greater part of last year. With the exception of the water delivered by the Grand Junction and Lambeth Companies, which was slightly turbid, the filtration was in every case efficient. The water abstracted from the river Lea by the New River Company was of better quality than in the previous month, whilst that delivered by the East London Company was inferior to any supplied from this source since March last. Both waters were efficiently filtered previous to distribution. The deep-well water sent out by the Kent and Colne Valley Companies and by the

Tottenham Local Board of Health was of its usual excellent quality for drinking purposes; and that furnished by the Colne Valley Company having been softened with lime previous to delivery, was thereby rendered also well fitted for washing and all other domestic purposes.

THE PHYSIOGNOMY OF PHTHISIS.

MR. FRANCIS GALTON has recently, in conjunction with Dr. Mahomed, been engaged in applying his method of "composite portraiture" to the investigation of the amount of truth which may underlie the popular belief that a certain type of features indicates a tendency to certain diseases or classes of disease. As yet their attention has been limited to the determination of the reality of a consumptive type, and for this purpose they have photographed a large number of patients, whom they then proceeded to group on clinical data. Cases of advanced disease showed nothing particular beyond well-marked emaciation. Cases grouped according to the rapidity of the course of the disease gave negative results, nor had those in whom the hereditary tendency was strongest anything very definite in common. But on a further examination these last were found to fall into two main divisions, not, however, separated by any well-marked line of demarcation. In the first division the faces were broad, with coarse, blunt, and thickened features; while in the second the faces were thin, narrow, and ovoid, with thin, soft, and narrow features—the two types corresponding with what are commonly known as the strumous and tubercular physiognomies. Comparing, however, phthisical and non-phthisical patients, they found the same proportion of narrow, ovoid faces to exist in each. Thus far, their conclusions are opposed to the belief that any single type of face prevails among "consumptive" persons generally, or that persons of any special type are more predisposed to phthisis, although the phthisical members of each class are generally of a more delicate type, with finer features, lighter lower jaws, and narrower faces. Yet the delicate features and ovoid face seem to betray an excessively developed nervous temperament, with a deficiency of bone and muscle and staying power, easily breaking down under insanitary conditions or mental strain which their robust brethren would resist; and if, as many maintain, the so-called strumous diathesis be a modified syphilitic taint, it is not surprising that among such the low inflammatory changes called struma should be frequently observed. The inquiry, or rather the method employed, is new, and is certainly very interesting.

SEPARATION OF THE CRANIAL BONES IN MENINGITIS.

M. PARROT records (*Revue de Médecine*, February, 1882) three cases of meningitis in children (occurring in his clinique at the Hôpital des Enfants Assistés in Paris), in which, post-mortem, the bones of the skull were found separated along their sutures, apparently by the increase in size of the diseased brain. The cases are briefly as follow:—*Case 1*: A boy, aged two years and nine months, was admitted for diarrhœa. He had also some slight pulmonary trouble, with elevation of temperature. On the day following his admission he had some slight rigidity of limbs, with intermitting twitchings. On the second day epileptiform convulsions set in; *tache cérébrale* was manifest. Death ensued on the third day after admission. At the post-mortem examination, on removing the scalp it was seen that the bones of the calvaria were separated from each other, especially along the coronal, sagittal, and frontal sutures, and the intervening space was filled with a blood-stained material. The extent of the separation reached as many as three millimetres. *Case 2*: A boy, aged two years, was admitted with marks of congenital syphilis and diarrhœa. He

died six days later of tubercular meningitis. At the autopsy, the parietal and frontal bones were found separated along the coronal suture to the extent of two millimetres, the interval being filled with a blood-stained material; to a less extent, the sagittal and lambdoid sutures were separated. The ventricles contained a considerable quantity of fluid, and the brain-substance was much softened; tubercles were abundant. *Case 3*: A boy, aged three years, was under treatment for conjunctivitis; he recovered from this. Shortly afterwards, tubercular meningitis supervened, and he died. In this case the bones were separated three millimetres, the interval being filled with blood. The surface of the convolutions, which were much flattened, was covered with a thick layer of puriform lymph. There was no fluid in the ventricles, which appeared normal. (We have only mentioned the cerebral lesions in these cases for the sake of brevity.) M. Parrot regards this lesion as due to the pressure of the diseased brain, which, in consequence of the inflammatory changes, more or less quickly increases in size. This increase in size, about which there may be differences of opinion, he thinks is proved, first, by the flattening of the convolutions, but chiefly by the weight. In the preceding cases the brain weighed from 78 to 110 grammes more than the average for the corresponding age in health. This increase of weight may depend on several causes. One of them is the inflammatory or tubercular infiltration which existed in all these cases, as well as hydrocephalus in one of them. A condition which is almost essential for the development of such displacements is an acute onset of the encephalo-meningeal lesions; for, as is well known, if the changes occur slowly, the cranial cavity adapts itself to the increasing volume. The age of these patients rendered it more than probable that no membrane existed at the sutures; but at the same time, and for the same reason, the sutures were less solid than at a more advanced period of life. M. Parrot, on looking back at the cases, could not point out that any signs had existed during life indicative of such a condition. In all the cases the lambdoid suture was less affected than those situated in the fore part of the skull, while the basal sutures were quite unaffected. This is explained on physiological grounds, viz., that the brain tends to increase in an antero-superior direction more than in any other, both in health and disease.

FUNERAL OF SURGEON-GENERAL FASSON AT ALDERSHOT.

ON Thursday, 15th inst., the remains of Surgeon-General Fasson were interred in the Officers' Cemetery at Aldershot, with full military honours. The troops turned out for the funeral party were—two batteries Royal Artillery, three squadrons of Cavalry, two battalions of Infantry, and three hundred men of the Army Hospital Corps, all under the command of Major-General Spurgin, C.B., C.S.I., commanding the First Infantry Brigade. All the medical officers of the garrison, amounting to fifty, including the young officers going through the course of bearer company drill, etc., at Aldershot, attended in full dress, as did also an immense number of officers of all arms who were present voluntarily, in token of the high estimation in which the deceased had been held among them. The procession started from the quarters of the deceased officer shortly after the appointed hour, 3 p.m. The coffin was borne on a gun-carriage with six horses in funereal trappings; and the pall-bearers were Lieutenant-General Sir Daniel Lysons, K.C.B., commanding the troops at Aldershot; Major-General Sir F. FitzWygram, Bart., commanding the Cavalry Brigade; Brigadier-General Willis, C.B., commanding the 2nd Infantry Brigade; Colonel the Hon. E. G. Curzon, Assistant-Adjutant and Quartermaster-General; Colonel

W. E. M. Reilly, C.B., commanding Royal Artillery; Colonel Sir H. C. Elphinstone, K.C.B., commanding Royal Engineers; and Deputy-Commissary Long. Major-General H.R.H. the Duke of Connaught and Strathearn, commanding the 3rd Infantry Brigade, was also to have been one of the pall-bearers, but was unable to attend in consequence of having been summoned to town by H.R.H. the Prince of Wales to attend the meeting at Freemasons' Hall for the adoption of an address on the escape of Her Majesty from the recent attempt on her life. The chief mourner was Dr. Fasson's only son; his brother, formerly an officer in the Army Medical Department, and a small party of other relatives and intimate friends, also followed the bier. Surgeon-General J. M. S. Fogo, Principal Medical Officer at Woolwich; Surgeon-General G. A. F. Shelton, M.B.; Deputy Surgeon-General J. Irvine, M.D.; and Brigade-Surgeon L. Kidd, M.B., attended from the office of the Director-General of the Army Medical Department.

BACHELOR OF SURGERY, CAMBRIDGE.

THE new statutes for the University of Cambridge which have just been approved by the Queen in Council provide for a degree of Bachelor of Surgery in the University.

RETRO-PHARYNGEAL ABSCESS AND SCARLET FEVER.

DR. LEWANDOWSKY, in recording two cases of retro-pharyngeal abscess after scarlet fever, in the *Berliner Klinische Wochenschrift*, No. 8, draws attention to the comparative rarity of this complication of scarlet fever, although inflammatory conditions of contiguous or neighbouring parts of the neck are so very common. Dr. Schmitz did not find one single case in the St. Petersburg Children's Hospital among 450 cases of scarlet fever. Dr. Bókai, on the other hand, gives seven cases as occurring among 664 cases of scarlet fever, being in the proportion of 7 out of 144 cases of retro-pharyngeal abscess which he had collected together. *Case 1*: A child, one year old, contracted the fever (two other children had died of the malignant form), apparently not very severely. There was early some inflammation about the posterior nares, as evidenced by a copious muco-purulent discharge from, and swelling about the base of, the nose. Fauces not unduly inflamed or affected. About three weeks after the commencement of the fever, convalescence being slow and variable, but without any symptoms specially pointing to the retro-pharynx, a swelling was noticed on the left side of the median line, with distinct fluctuation. An incision was made into it, and about half an ounce of thin yellow pus let out. The child then rapidly recovered. *Case 2*: A boy, aged seven months, sickened with a mild attack of scarlet fever. The catarrhal symptoms in the fauces were slight; but there was a copious discharge of muco-purulent material from the nares. Convalescence was proceeding slowly, when (on the tenth day) a peculiar snorting respiration came on. On examining the fauces, a swelling was seen, which fluctuated on pressure. An incision was made into it, and a tablespoonful of good yellow matter was evacuated. The child soon recovered completely. In some remarks, the author points out that it is especially in young infants that this form of abscess mostly occurs. They were on one side of the fauces only; their development was slow, and subacute in form: and thus there were none of the symptoms of suffocation and difficulty in swallowing which occur in more acute cases. On this account, perhaps, they may occasionally be overlooked. Mere inspection of the fauces does not suffice for their recognition; the finger is almost always necessary. Prognosis is not unfavourable; an incision is the proper treatment to adopt.

FROM ABROAD.

ANASARCA OF NERVOUS ORIGIN.

PROF. POTAIN, lecturing at the Necker (*Gaz. des Hop.*, February 2), observes: "We have in the St. Adelaide ward three patients, Nos. 5, 16, and 22, who have this in common—that all three have more or less considerable cedema, but so generalised as to deserve the name of anasarca; and what is more, this cedema is not constant.

"Cedema is usually a phenomenon of considerable value in relation to the diagnosis and prognosis of diseases. In pregnant women, as No. 22, it is ordinarily a sign of albuminous nephritis, which may be of great importance at the period of delivery. When, as in No. 5, it is accompanied by palpitations, oppression of breathing, and occupies the lower extremities and eyelids, it most frequently characterises some affection of the heart. And finally, when, as in No. 14, it is met with in subjects of pulmonary tuberculosis, and is generalised in the face and limbs, it betokens a deep-seated cachexia and renal tuberculosis. The patient No. 5, although suffering for a long time from palpitation and oppression, exhibits neither organic lesion of the heart, rheumatism, nor inflammatory disease. But unmarried, and twenty-eight years of age, she is very nervous, choleric, and even violent, laughing or crying for a mere nothing. She, moreover, presents some modifications of sensibility, so that she is completely analgesic on both sides, although her tactile sensibility is perfectly normal—a coincidence frequently met with in women who are somewhat hysterical, as seems to be the case with this one. She also presents certain signs of chloro-anæmia, which explains her neuropathic condition and the palpitations which result from it. The urine does not contain a trace of albumen. No. 14 is a woman in whom the evidence of tubercle is as plain as possible, the disease having reached its third stage, with a certain amount of emaciation, puffiness of the face, and cedema of the extremities. But may not this anasarca be the result of a deep cachexia with disalbuminisation of the blood? I do not believe it; for, although the disease is advanced, there is no diarrhoea present, nor has she ever had any serious disturbance of the digestive organs. Finally, the urine contains no albumen. Here, then, as with the preceding patient, is an anasarca which is not to be explained in the usual manner. No. 22 is eight and a half months advanced in pregnancy, and has had vomiting at its commencement, and again quite recently. She seems very well, with the exception of great pallor and a certain amount of puffiness of the face and swelling of the legs. The abdomen is normally developed, and there is no swelling of the veins, so that there can be no suspicion of compression. The heart tells nothing; the fœtus is lively, and the abundant urine contains no albumen.

"Such are three cases of anasarca or generalised cedema without sufficient explanatory cause, and all occurring under different conditions. But it is well known that cedema of the cellular tissue is not always easily explained, and that in some cases we should only pronounce our opinion with a certain reserve. It is generally stated that cedema is the result either of an obstacle to the venous circulation or of some alteration in the blood, producing its disalbuminisation. But you may have patients who exhibit anasarca from the very first day that their urine contains albumen; some of them, indeed, in whom we observe it even before this—that is, at an epoch at which no alteration in the blood as yet exists. There are other cases in which the anasarca, due to a renal affection, is not generalised, but occupies one half of the body corresponding to the lesion of the organ—as in contusion of the kidney, for example. But if an alteration in the blood were the true cause of the anasarca, how could we admit that the blood of one side of the body should be different from that of the other? We must therefore seek for the explanation elsewhere, viz., in a perturbation in the action of the central nervous system, which, when it exists, may act as an obstacle to the venous circulation. Can we attribute the tumefaction in chlorotic patients to the existence of albuminuria, when all chlorotics are very far from being the subjects of albuminuria, while they are all nervous subjects? The anasarca itself is by no means always

proportionate to the chlorosis; and there are women who are highly chlorotic, who have no anasarca whatever. Thus, No. 5 is but slightly chloro-anæmic, and yet she has considerable anasarca; so that this condition is not always in relation to the state of the blood. This fact of disalbuminisation of the blood is far from being proved; for in some cases we meet with blood even richer in albumen. The deglobulisation of the blood is not also proportionate to the palpitations, which signifies that between the palpitations and chloro-anæmia there are both mechanical relations and vital or nervous relations.

"If, then, with regard to these three patients, we seek for the cause of their anasarca, we see that in No. 5 the circulatory disturbances are only the consequence of somewhat intense nervous disturbance. The swelling exhibits itself in sudden accesses, coming on especially after meals and when the patient is standing, and is accompanied by itchings analogous to those of urticaria. As to No. 14, the pulmonary phthisis is not the exclusive cause of the anasarca; but it is very probably due to some alteration of the kidneys which reacts on the central vaso-motor nervous system without disalbuminisation of the blood. Finally, in No. 22, the distension of the uterus, for some reason of which we are ignorant, reacts on the nervous system, inducing vomiting and anasarca. In this case the recognition of this fact is all the more important, as it leads to a favourable prognosis, very different from that which would be entailed by an alteration in the blood—a disalbuminisation."

EMULSIONS OF COD-LIVER OIL.

In a paper in the *Louisville Med. News* (February 18) Prof. Diehl, of the Louisville College of Pharmacy, calls the attention of practitioners to the desirableness of their preparing their own emulsions. Those prepared by manufacturers soon undergo change and become unfit for use. By following the rules which he lays down, he says, the practitioner may always be in possession of a fresh and reliable preparation.

"These rules are:—1. That the water and gum-arabic shall be in definite and absolute proportions to each other. This proportion is three parts of water to two of gum, both by weight. 2. That the relation of oil to gum and water shall be definite within certain limits—that is to say, the mucilage formed in the above proportions is capable of perfectly emulsifying a minimum and a maximum proportion of oil. The minimum is two parts of oil to one of gum; the maximum is four parts of oil to one of gum. 3. That the trituration of the oil, gum, and water be continued until a perfectly homogeneous, milky-white, thick-creamy mixture is formed—i.e., until perfect emulsification takes place—before the addition of a further portion of water or other liquid. The thick creamy emulsion so obtained must be the basis of all perfect emulsions. It will bear dilution to any extent, forming mixtures varying, according to the proportion added, from the appearance and consistence of cream to that of very thin milk. Obviously, for water may be substituted solutions of saline compounds, syrups, etc.; and this enables the production of the various combinations of cod-liver oil in current use from the above thick-creamy emulsion, which, for distinction, I shall designate—1. *Concentrated Emulsion of Cod-Liver Oil*.—Take of fresh cod-liver oil eight, powdered gum arabic two, and distilled water three ounces troy. First weigh the gum into a wedgewood or porcelain mortar, then the oil, and triturate until the gum is well mixed with the oil. Then weigh into the mixture the distilled water, and triturate the whole briskly until the mixture thickens and acquires a pasty consistence and milky whiteness. Scrape down the portions adhering to the sides of the mortar and to the pestle, and continue the trituration for a short time, after which add such other ingredients as may be desirable, or transfer the concentrated emulsion to a wide-mouthed bottle for future use. This concentrated emulsion will keep for a reasonable time in cold weather, and if put into the ice-chest, also during summer; but as its preparation does not take more than five or ten minutes, never more than a week's supply should be made. 2. *Simple Emulsion of Cod-liver Oil*.—Take of the concentrated emulsion thirteen ounces troy, oil of wintergreen twenty-six drops, syrup one fluid-ounce, and water three fluid-ounces. Weigh the concentrated emulsion into a mortar, add the oil of wintergreen, and triturate thoroughly. Then gradually

add first the water and then the syrup. The manipulation of this emulsion is typical for all other cod-liver emulsions. It has the consistence of very thick cream, but is readily poured out of narrow-mouthed bottles, is milky-white, and mixes readily with water or other liquids that may be administered with it. It contains exactly 50 per cent. (by volume) of oil. The oil of wintergreen disguises the taste of the oil very admirably, and has the further advantage that it acts as a preservative."

We need not transcribe the other formulæ for combinations with cod-liver oil. The procedure, however, may be applied to other oils, and the following *emulsion of castor oil* is worth quoting—"Take of castor oil four ounces troy, powdered gum-arabic one ounce troy, distilled water one ounce and a half troy, syrup, cinnamon-water, of each three fluid-ounces, spirit of cinnamon twelve minims. Emulsify the oil with the gum and water, as directed under No. 1, and then add the other ingredients successively with constant trituration. This emulsion contains 33 per cent. of castor oil, and is consequently more limpid than the 50 per cent. cod-liver oil emulsion, and in every respect is an elegant preparation."

REVIEWS.

A Practical Treatise on Nasal Catarrh. By BEVERLEY ROBINSON, A.M., M.D. (Paris), Lecturer upon Clinical Medicine at the Bellevue Hospital Medical College, New York; Physician to St. Luke's and Charity Hospitals, etc. New York: Wood and Co. 1880. Pp. 182, with 56 Illustrations.

THE author states in his introductory chapter that his object is to describe fully the symptoms and proper treatment of ordinary forms of disease, and also to give clearly and sufficiently their points of differential diagnosis. He points out also how essential it is, in dealing with discharges from the nose (which are almost always attributed by practitioners to "catarrh"), to accept the fact that different pathological changes may occasion closely allied symptoms. Chapter II. contains the division or classification of the various forms of discharges from the nose. They are *idiopathic* or *symptomatic* mucous and muco-purulent, and purulent discharges. These are again classified until we arrive finally at the twenty-ninth group: thus there are seven forms of idiopathic mucous and muco-purulent discharges, and three of symptomatic; whilst there are nine varieties of idiopathic purulent, and ten kinds of symptomatic purulent discharges. This will probably seem a needlessly extensive classification; still, if it adds clearness and exactness to a diagnosis, it is not, possibly, to be complained of; certainly some of the varieties are very rarely met with.

Chapter III. deals with the anatomy, physiology, and pathology of the nose, and therefore requires no further notice, as it only states what is well known and commonly taught on the subject. Chapter IV. gives a description of the instruments for examination, and Chapter V. of those for the treatment, of the nasal cavities. Chapter VI. illustrates anterior and posterior rhinoscopy. The author says that he has not attempted to make his book learned in bibliographical research, and that some instruments and methods of treatment adopted by others have not even been referred to. This would have been detected, if not stated; but as an account of his own personal experience and convictions is all he professes to supply, there is no ground for criticising this omission.

Chapter VII., on prophylaxis and general remedial treatment of various forms of coryza, contains many well-known and familiar directions and facts. Several of the methods of treatment are quoted from English and other well-known sources; some few seem to be suggestions of the author, and differ in slight particulars from those commonly in use.

Chapter VIII. is on hypertrophy of the turbinated bones, falsely so-called, for, as the author points out, the hypertrophy is confined to the mucous membrane and submucous layer which cover these bones. The nasal tone of voice, or "twang," which, it would appear, is somewhat special to Americans as a race, is considered by the author to be due to hypertrophy of the pituitary membrane and the thickening of the laminae of the nose, and not, as is generally supposed, to a faulty or improper use of the laryngeal muscles, or those

of the palate, in producing phonetic sounds. This condition of hypertrophy of the tissues over the turbinated bone Dr. Robinson thinks is due, either to repeated attacks of acute coryza or to pernicious methods of treatment, and he emphasises the importance of prophylactic treatment.

The last chapter (IX.) is on follicular disease of the naso-pharyngeal space, or post-nasal catarrh. It is the same disease as follicular disease of the pharynx, only differing from the latter by the peculiarity of its seat. The glands of the naso-pharyngeal space are continually excited to increased action by the presence of abnormal secretion, and shortly become obviously hypertrophied, as may be recognised by the rhinoscopic mirror. This chapter is, perhaps, the best in the book; and it gives a very instructive account of the pathology, symptoms, complications, diagnosis, and treatment of the affection.

Until we became acquainted with Dr. Robinson's book we had no idea that nearly 200 large octavo pages could be written upon the subject of "catarrhal inflammations of the nose."

An Index of Surgery: being a Concise Classification of the Main Facts and Theories of Surgery, for the use of Senior Students and others. By C. KEETLEY, F.R.C.S., Senior Assistant-Surgeon to the West London Hospital, Surgeon to the Surgical Aid Society. London: Smith, Elder, and Co. 1881. Pp. 428.

MR. KEETLEY designed this book for "the senior student shortly before he goes in for his final examination, and after he has carefully studied a complete text-book of surgery," and he also expresses "a hope that the practitioner, as well as the student, will occasionally find the book useful as a handy little work of reference." And we do not doubt that both will find it useful. The student will be enabled by it to go over in the space of a week the subject-matter which has taken him many months to peruse in the standard works on surgery. The practitioner will be able to rub up forgotten topics, and will find references and authorities given to which, if he so desires, he can at once turn for fuller information. The uses of this index are obvious, and can be soon stated; it is the misuse of it that is to be condemned. Like the very excellent "Tablets of Anatomy and Physiology" by Mr. Cooke, it has its proper place, and a sufficient and very plausible *raison d'être*. When used by the industrious and well-read student prior to an examination, these works bring back to mind facts and information which were possibly beginning to fade away into the background of memory; and, but for the restorative effect of the Tablets or Index, would not be available for ready use on demand from an examiner. To such students these aids to memory are to be fairly recommended. But to the idle or misinformed they are delusions and snares; and in their effect upon these students they can only be compared to that of a superabundant and indigestible meal upon the dyspeptic: they cannot be assimilated; they are so much matter which cannot be applied; and they give rise to a sensation of weight without utility, and satiety without satisfaction.

It may be argued that advanced students should make such notes as these for themselves; and certainly, by the time when they are preparing for the higher examinations in surgery, they ought to have acquired sufficient "practical experience and breadth of view" for this purpose. But it must be admitted that something more than this is needed to produce a work like the "Index of Surgery" now before us. Method of arrangement to make the notes compact and easy of reference, as well as very extensive reading and research to make them full and complete, are also necessary qualifications. Mr. Keetley has shown himself possessed of both these essentials: his arrangement of subjects is alphabetical; and over 300 authors are consulted. He is to be congratulated upon having produced a work which, though not on all points brought up to date, is certainly well calculated to answer the ends he has intended it to serve.

INSECTS IN THE EAR.—Dr. Kingsley, writing to the *New York Med. Record* (February 11), states that he has on several occasions been able to secure the removal of living insects at night from the ear by placing a lighted candle before the orifice. The insect, attracted by the light, at once rushes out.

REPORTS OF SOCIETIES.

THE OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 1.

Dr. MATTHEWS DUNCAN, President, in the Chair.

DOUBTFUL CASE OF DOUBLE VAGINA.

DR. GALABIN showed a microscopic section of the septum dividing the vagina from a peculiar abnormal passage in a girl aged seventeen. She was admitted into a surgical ward in Guy's Hospital, for what was thought to be a cystic dilatation of the base of the bladder or urethra, protruding at the vulva. Dr. Galabin recommended it to be cut away, and the edges brought together, but his surgical colleague declined to operate, fearing a permanent fistula. Dr. Galabin subsequently operated himself, but on cutting across the swelling found that he had not opened the bladder, but the lower extremity of a cylindrical passage, like a second vagina, but lying in front of the left half of the main vagina, and ending just to the left of the os uteri, in a small opening, through which a probe could be passed half an inch only.

Dr. ROUTH asked if the narrow part of the canal had been explored, and what was the condition of the uterus. He thought a second vagina might lie in front of the main passage instead of at the side.

Dr. CARTER had on several occasions met with cysts in the anterior vaginal wall, though none so extended as that described by Dr. Galabin. The cysts were opened and contained a glairy mucoid fluid.

Dr. GALABIN said that the uterus could not be detected as abnormal on bimanual examination. He did not think the passage could have been a cyst, for it was cylindrical and not globular, and the contained fluid was not mucoid.

RETENTION OF MENSTRUAL FLUID IN ONE HALF OF A DOUBLE UTERUS.

Dr. GALABIN read this paper. The patient, aged fifteen, was brought by her mother for consultation for symptoms exactly resembling those of ordinary severe spasmodic dysmenorrhoea, and no swelling or tumour had been noticed. Menstruation was fairly regular, and rather profuse. The pain was felt chiefly during the flow, was intermittent, agonising in severity, and led to retching and hysterical manifestations. On examination, a firm, globular swelling, without any fluctuation or elasticity, about as large as the uterus at three and a half months' pregnancy, was felt through the anterior vaginal wall. The os was difficult to discover, and was displaced backwards and flattened antero-posteriorly. The patient was so hyperæsthetic that it was impossible to attempt to use the sound. The author rejected the hypothesis of fibroid tumour on account of the patient's youth and the commencement of the symptoms with puberty, and felt sure that menstrual fluid would not accumulate to any amount in the uterus if there were any exit whatever through the cervix. He therefore diagnosed retention in one half of a double uterus. It was agreed with Dr. Stirling, of Grange-road, under whose care the patient had been, that an anæsthetic should be given, and the swelling evacuated if the diagnosis appeared to be confirmed on use of the sound. Under anæsthesia it was found that the sound passed easily to the normal length, going rather towards the right side, and the os appeared to be displaced a little to the right. The swelling was then punctured, and the usual treacly fluid seen in cases of retained menses began to escape. The opening was enlarged with scalpel and director, till it easily admitted the finger, and about ten ounces of fluid escaped. No injection was used on the spot, but it was intended to commence antiseptic injections after allowing a few hours for complete escape of the fluid. The extreme hyperæsthesia and hysterical resistance of the patient, however, made it impossible to do more than syringe the vagina. Discharge of sanguineous fluid was free up to the third day, but it then almost stopped, and what there was became offensive. Next day febrile symptoms set in, temperature rising to 104° 6°, pulse to 140. The patient's friends refused to allow an anæsthetic to be given to wash out the uterus until the seventh day, when the author saw her again. There was then still high

fever, but no sign of peritonitis. An anæsthetic having been given, the opening into the left half of the uterus was again enlarged, and the cavity washed out with solution of absolute phenol, one in forty. Considerable improvement followed up to the twelfth day, although it still proved to be impossible to do more than syringe the vagina, and little doubt was felt about the patient's recovery. On the twelfth day she was suddenly attacked with violent pain in the abdomen and collapse, and died in about twelve hours. The author thought that the symptoms pointed to rupture either of the Fallopian tube, or of some abscess in the neighbourhood.

Dr. GRAILY HEWITT's experience had led him to the conclusion that it was safer, in performing the operation for retained menses, to make a small opening, and allow gradual escape of fluid, and gradual contraction of the walls of the cavity, which were often weak and thin. If allowed to discharge itself too quickly a suction might afterwards be exercised, and septic material drawn in.

Dr. GERVIS thought that Dr. Galabin had himself pointed out what would have been the most useful addition to the conduct of the case, the washing out with antiseptic fluid the uterine cavity. He agreed with Dr. Hewitt as to the importance of moderately slow evacuation, but with antiseptic precautions, thinking that the danger was less through any uterine suction than through decomposition of unremoved fluid.

Dr. WYNN WILLIAMS differed from Dr. Graily Hewitt in that he made a very free opening to get rid of all the menstrual fluid at once. He would have syringed out the uterus with a solution of iodine, which he believed the safest and best antiseptic. He would also have avoided making a second incision, any septic condition being present.

Dr. CHAMPNEYS had seen a case of retained menses in one half of a double uterus, under Dr. Winckel, of Dresden. In this slow evacuation did not present a fatal result, which was caused by the retraction of the uterus from an adhesion, which tore a hole in the thin uterine wall. Death resulted from septic peritonitis.

Dr. CLEVELAND was surprised at the fear expressed as to the use of carbolic acid injections. In chronic inflammation of the bladder he had used injections of absolute phenol—one to fifty or sixty of water—with excellent results.

Dr. CARTER agreed with what had been said as to the dangerous results which had at times followed the injection of a solution of carbolic acid into the uterus. He related the case of a patient who was for some time in a very critical state following the washing out of the uterus, the third day after a miscarriage, with a solution of the strength of one in eighty.

Mr. MALINS thought there was some doubt about Dr. Galabin's diagnosis, in the absence of an autopsy. The symptoms and physical state did not seem inconsistent either with an anterior hæmatocele, or thrombosis in the cellular tissue. He had met with similar cases, in which the difficulty in insuring drainage and disinfection had been overcome by using a winged catheter with the end cut off. He thought nothing was better than tincture of iodine for disinfection.

Dr. ROUTH did not agree with Dr. Graily Hewitt in his advice to make a small opening. Experience had proved that it was apt to close, and sometimes it had been followed by a fatal result. His plan was to draw off by a large aspirator and inject iodine solution, and to do this morning and evening, keeping in a drainage-tube.

The PRESIDENT would only remark that he, in cases of retained menses, made a free opening and allowed the fluid to drain away, using no injection of any kind. He had, in a considerable experience, had no fatal case or evil result, and he believed he had observed injurious consequences of the injection of plain warm water in cases which he had witnessed.

Dr. GALABIN thought that the plan of gradual evacuation was desirable when the quantity of retained fluid was large, but not when it was small or moderate. He did not think the fatal result in his case could be attributed to the injection of carbolic acid, or even to the second incision, for a marked improvement had followed that proceeding, and continued for at least four days. He did not believe the case could have been one of hæmatocele, for the swelling had been perfectly movable, and he did not think that the contents of a hæmatocele ever so perfectly resembled the uniform treacly fluid seen in cases of retained menses.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 28.

ANDREW WHYTE BARCLAY, M.D., President, in the Chair.

ON MEDIASTINAL EMPHYSEMA AND PNEUMOTHORAX IN CONNEXION WITH TRACHEOTOMY: AN EXPERIMENTAL INQUIRY.

Dr. CHAMPNEYS read a third communication on artificial respiration in stillborn children, being an experimental inquiry into the subject of mediastinal emphysema and pneumothorax in connexion with tracheotomy. The observations were made on twenty-six stillborn children who had never breathed, the subjects of experiments with regard to artificial respiration (*Medico-Chirurgical Transactions*, vol. lxiv., 1881). The method of experiment consisted in connecting a tube filled with water, by means of a flexible tube, to a canula tied into the trachea, and using the various manipulative methods of artificial respiration. In one case the tube was filled with mercury. A table was given, showing the methods employed, the maximum inspiratory effect produced (in inches of water measured in the V-tube), and the autopsy. The subjects available for the inquiry were twenty-one in number. Mediastinal emphysema occurred in seven, or one-third of the whole number. Pneumothorax occurred in five out of these seven cases, but in no other. In three cases it was found into the right pleural sac, in one into the left, in one into both. In no case did the rupture occur into the better expanded side of the chest. Coloured injection was found to be drawn from the region of wound down to the trachea (left unopened), into the anterior mediastinum. The explanation now offered was that in obstruction of the air-passages (as by the weight of a column of fluid) the air followed the route of least resistance. If rupture occurred from the mediastinum into the pleural sac, the less expanded side was the side usually chosen. It was, however, pointed out that a thickened pleura overlying a less expanded lung might determine rupture into the other or better expanded pleura. Mediastinal emphysema was shown to have specially followed Schultze's method of artificial respiration, which is sudden in its action. Reference was made to autopsies after tracheotomy at St. Bartholomew's and the Children's hospitals. Pneumothorax was shown to be a secondary consequence of mediastinal emphysema. Emphysema of the neck was shown to be due to opposite conditions, but these observations probably explained its occurrence during labour. Practical conclusions—1. Emphysema of the anterior mediastinum occurs in a certain number of tracheotomies. 2. It is often associated with pneumothorax, to which it stands in causal relation, and pneumothorax may be the cause of death after tracheotomy. 3. The air is most likely to burst into that pleura of which the lung is the less expanded. On the other hand, pneumothorax of course helps to collapse the lung. 4. The route selected by the air is the space beneath the deep cervical fascia. 5. Emphysema of the anterior mediastinum may or may not be associated with emphysema of the neck; but their causes are different, and the conditions of their production are opposite. 6. The conditions favouring the production of mediastinal emphysema are division of the deep cervical fascia, obstruction to the air-passages, and inspiratory efforts. 7. The dangerous period during tracheotomy is the interval between the division of the deep cervical fascia and the efficient introduction of the tube. 8. The deep cervical fascia should on no account be raised from the trachea; the incision in it should not be longer than necessary in the direction of the sternum, and this should be particularly remembered during inspiratory efforts. 9. It will probably be found that the frequency of occurrence of emphysema of the anterior mediastinum depends much on the skill of the operator, especially in inserting the tube. 10. If artificial respiration should prove necessary, the tissues should be kept in apposition with the trachea, and any manipulations performed steadily and without jerks. 11. Schultze's method (which is otherwise unsuitable for the above purpose) is especially prone to produce emphysema of the anterior mediastinum. 12. These observations illustrate the fact that, apart from the question of tracheotomy, the inspiratory force of the thorax should be remembered in all operations near the root of the neck, and in the case of all collections

of pus beneath the deep cervical fascia. In these cases quiet respiration is essential for the safety of the patient, and vomiting, which begins with a sudden inspiration, is dangerous. 13. These observations may serve to illustrate the production of emphysema of the neck, etc., during labour.

Dr. MATTHEWS DUNCAN considered the paper of great practical value, inasmuch as certain unexpected results had been attained from facts collected for a different purpose. Thus they had thrown light on the occasional occurrence of emphysema in the neck of parturient women. Perhaps at some time the same might be done with regard to emphysema in the groin in cases of difficult labour.

Mr. WARRINGTON HAWARD thought the paper was of great interest to surgeons, as it was important to avoid emphysema in operations about the root of the neck. Perhaps the mechanism of restrained respiration in parturient women was something like that in paviours, only longer continued. He had tried to produce emphysema by forcing air into the lung, but it was hardly possible to prevent air escaping by the trachea or its artificial opening.

Dr. REGINALD THOMPSON referred to a case mentioned in a former paper by Dr. Champneys, where there was disease on one side and pneumothorax on the other. Perhaps the latter had arisen from the former by the passage of air through an opening which existed.

After a few remarks from the President, Dr. CHAMPNEYS briefly replied.

ON THE GREAT FREQUENCY OF CARDIAC MURMURS IN THE PUERPERAL STATE: BEING THE RESULT OF WORK AT THE GENERAL LYING-IN HOSPITAL.

Dr. J. WILLIAMS communicated the above paper for Dr. ANGEL MONEY. The observations were made last year (February to end of July), on 111 consecutive cases. Murmurs were heard in eighty-four cases, or about 75 per cent. The great majority of the murmurs were situate over the right heart. There were two cases of undoubted structural disease. The remaining great bulk of the murmurs were dealt with. The patients who possessed a murmur for the most part did not suffer from symptoms referable to the heart. The time of the murmurs was invariably systolic. The murmurs were divided into three sorts. The first (resembling an ordinary endocardial murmur) was most numerous—was of blowing character, soft; usually low or medium-pitched; fairly long, and heard with almost every cardiac beat; presented but little variation during the course of its existence. The number of these was 51: 36 were loudest over the tricuspid area, 8 over the mitral area, 6 over the pulmonary, 1 over the aortic. By tricuspid area was meant the fourth left space, just a little to the left of left edge of sternum—there and thereabouts. The murmur was conducted to a variable extent. The duration of the murmur was variable. Most commonly the murmur was first heard a day or so after delivery. The mechanism of the murmur was discussed. The most novel and interesting, the "tricuspid" murmur, was believed not to be due to tricuspid regurgitation. No definite conclusion was come to as to the mode of production. The second kind ("friction-like") was almost absolutely non-conducted, and was heard over a very small area just above and to the left of ensiform cartilage. The murmur seemed superficial, was high-pitched, and stiff in quality; was not audible with every cardiac beat. This sort was heard twenty-nine times. The mechanism was probably exocardial friction. Its site would about correspond to the "white patch" which might be seen on the front of the right ventricle. The third kind of murmur, the least numerous, the most "capricious," was remarkable for its loudness, was very inconstant (*i.e.*, not heard with every cardiac beat), and was very transitory; its area of audition was remarkably limited; it was most frequently heard over one or other base of the heart; it commonly went with an excited action of the heart, associated with pyrexia or mental emotion. Besides pyrexia, excitement, and anæmia, this murmur was sometimes associated with râles in the chest and with a cough, but no sputa. The quality of the sound varied. In many cases it resembled the sound evolved when a piece of silk, tightly stretched, was scratched with the nail; or like the sound heard when pressure was made on the carotid in anæmic cases. Sometimes the sibilant râle was almost exactly imitated. The murmur was in all cases heard when the breathing was stopped. The mechanism of this murmur was discussed. The

murmur was heard sixteen times. The mode of generation of these murmurs was regarded as very puzzling. All the murmurs of the second and third kinds, and the majority of the first kind, were temporary phenomena. Murmurs in the puerperal state were (for the most part) not indicative of the appearance of serious cardiac lesions. It came out, as the result of observation, that the first cardiac sound was relatively loud over the right heart; that the pulmonary second sound was markedly accentuated; that the sensation communicated to the stethoscope was stronger than natural over the right heart. It had been, and was, inferred that the right heart acted robustly during the puerperal state, and that the tension in the pulmonary artery was increased. Which of these factors preceded the other, or whether they appeared simultaneously, was not answered. Attention was directed in every case to the occurrence of rheumatism in any shape, also to the quality of the blood, to the urine, body-heat, age, civil state, and number of pregnancies. As a broad statement it could be said that such observations were of negative value in the question of the mechanism of the murmurs. The murmurs explained, or were to be explained by, the normal cardiac and circulatory conditions which were believed to exist during the puerperal state. These conditions have been mentioned above.

Dr. JOHN WILLIAMS had seen a good many of the cases observed by Dr. Money at the Lying-in Hospital; the observations were conducted with great care, and no one would have believed the frequency with which the murmurs had since been found. Their explanation was far from easy.

Dr. MATTHEWS DUNCAN said that Jacquemier had observed such murmurs, and they had been investigated by others, but little was known of them, except that they occurred during pregnancy and disappeared soon after delivery. Endocarditis was indicated by other signs besides these murmurs, and the abnormal sounds did not inconvenience the patient.

Dr. FINLAY asked whether the murmurs changed with change of position.

Dr. MATTHEWS DUNCAN said that the older authors considered that this was so.

Dr. R. THOMPSON suggested that an examination of the pulse might be superadded to that of the murmurs.

Dr. CHAMPNEYS could bear witness to the care with which the observations were made. Possibly the change in the position of the organs during pregnancy might help to account for the sounds heard.

The PRESIDENT asked if there was any murmur in the carotids. The murmurs might possibly be due to an alteration in the blood itself.

Dr. MONEY thanked Dr. Matthews Duncan for his references to the older authors. A murmur produced by pressure was of no great value.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 7.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

MULTIPLE ENCHONDROMATA.

MR. HUTCHINSON described this case (which was shown at the last meeting). The fingers of both hands were the seats of very large, and in part ulcerative, cartilaginous outgrowths. The young woman is aged nineteen years, and under the care of Dr. Elder, of Nottingham. She is said to have suffered from hip-joint disease when a child, and there is now shortening to the extent of eleven inches; but not from rickets in any way. A feature of interest in the case is the coincidence of multiple exostoses near the epiphyses of the long bones. There is no family history to account for these growths, nor any known cause for them.

Mr. BUTLIN thought that the coincidence of exostoses and enchondromata ought to be more common than it really was. From the rapid manner in which the growths had increased, he thought they might be a form of sarcoma, and that they might at any time take on a malignant character.

Mr. HUTCHINSON referred to the very rare occurrence, in actual practice, of exostoses and enchondromata in the same subject.



UNUSUAL NERVE DISEASE.

Mr. HUTCHINSON also described this case (which was shown as a living specimen at the last meeting). The case had been shown before the Society seven years ago (the earlier records would be found in the Society's *Transactions*, vol. xxvi., page 221 *et seq.*). The child was a helpless idiot; it could just move its limbs, but was quite unable to stand or walk. One of the eyes had been removed during infancy on account of suspected intra-ocular tumour. Dr. H. Jackson had diagnosed the case as one of double hemiplegia, due probably to thrombosis. Her family history was good; no syphilis or other diathesis to account for the lesion. Her illness began when she was a few days old, after a suspected exposure to cold. At first the skin was covered with vesicles, which soon formed into a scab, and was then followed by a peculiar marbling of the skin, which, however, had become less and less marked up to the present time. Sensation was perfect.

Dr. HADDON mentioned his case (which Mr. Hutchinson had also alluded to)—that of a boy aged thirteen. His disease had been preceded by a series of fits, commencing with a distinct aura, a disagreeable taste in the mouth, followed by twitchings of the arms, and then general convulsions.

Dr. WARNER did not think that double hemiplegia was so very uncommon in children, for he had had two cases under his care during the past year. In one of these there was also athetosis.

DISLOCATION OF THE HIP-JOINT.

Mr. BARKER showed this specimen, taken from the body of an infant one month old. The child had come under his observation for acute abscess of the joint, which he had aspirated, but it died in a few days. At the autopsy the joint-capsule was found much dilated and thickened; the acetabulum was lined with granulation tissue; the head of the femur was absorbed or absent. He believed it to be one of congenital dislocation, founding his opinion on the large size of the capsule, the absence of the ligamentum teres, and the general appearance of that half of the pelvis as contrasted with the other.

Mr. H. MORRIS agreed that the case was one of congenital dislocation, but he did not quite accept Mr. Barker's interpretation. One of the characteristic features was elongation of capsule and the ligamentum teres. The shape of the acetabulum in this case resembled one in the Middlesex Hospital museum; it was somewhat triangular.

Mr. R. W. PARKER had seen several cases (living) of what was supposed to be congenital dislocation of the hip; but in all these the deformity occurred on the two sides. He believed this was an important diagnostic point.

DEFORMITY OF THE LONG BONES.

Mr. DENT showed this case (a living specimen)—a girl aged eighteen years, one of five children, all of whom were healthy. There was no history of rickets or syphilis. The deformity commenced (after an attack of scarlet fever, from which she slowly recovered) with alteration in the shape of the legs, leading to genu valgum, for which she was operated on in Edinburgh. The relief, however, was only partial, as the deformity increased, and has steadily increased up to the present time. The pelvis is small, but not otherwise altered; the wrist epiphyses are large; the femora are curved, and their lower extremities large; the tibiae appear displaced backwards, their lower epiphyses large; the clavicles are curved; the ribs slightly beaded. The girl's growth is much stunted. The urine contained nothing abnormal. He asked, Was this a case of rickets, or one of mollities ossium?

Mr. R. W. PARKER had examined the patient as far as it was possible to do so in the ante-room, and thought the case was one of so-called late rickets. He need hardly recapitulate the symptoms; they were those ordinarily found in cases of rickets. Dr. Drewitt had shown a case during the discussion on rickets last year, which had been referred to a special committee. He would suggest that this case should be referred to that same committee.

Dr. DREWITT referred to his case, and noted the similarity between that and the one under discussion.

Mr. EVE said that there was a skeleton in the Museum of the College of Surgeons, illustrating this condition. It was labelled "Rickets."

Dr. BARLOW agreed in believing that the affinities of this disease lay with mollities ossium rather than with rickets.

Mr. DENT replied, and assented to the committee, to which the President then referred the case.

EXTENSIVE ALOPECIA AREATA.

Dr. TOM ROBINSON showed this man, who was aged twenty-five. The hair became white in patches, and then fell out. This occurred on the occipital region. The rest of the head then became affected. The disease then spread to other parts of the body, so that at present there was hardly any hair left. There were many patches of whitened skin about the body. He wished to draw special attention to (1) the man's general good health; (2) the symmetric arrangement of the patches; (3) the leucodermic patches; and (4) the affinity of this disease and leucoderma.

Dr. THIN mentioned an instance of this disease occurring in four members of the same family—a father and three children. The children used the same towels, brushes, and combs.

Mr. HUTCHINSON had also seen cases which were apparently contagious. Some time ago he thought he had discovered a fungus.

Mr. SQUIRE referred to cases of contagion in a school where the boys constantly wore each other's caps.

Dr. CROSBY thought that similarity of occupation might account for some cases.

SECTIONS OF SCALP AFFECTED WITH ALOPECIA.

Dr. DYCE DUCKWORTH (for himself and Dr. HARRIS) showed microscopical specimens taken from the scalp of a boy who had died in St. Bartholomew's Hospital. There was atrophy of hair-follicles and sebaceous glands, with sclerosis of the surrounding connective tissue. No parasite was discoverable. There was also what appeared to be new (inflammatory) cell-growth extending along the hair follicles.

RADICAL CURE OF HERNIA.

Mr. DAVIES-COLLEY showed this specimen. The man had been operated on by Mr. Wood about eight years ago. The hernia was kept up for five years, after which he had again been obliged to wear a truss; then one day the hernia came down, and got strangulated, and could not be returned. He was operated on and recovered perfectly. Three years later he died of peritonitis following perforation of the duodenum. On removing the parts at the autopsy, the internal ring was found large and patent for some distance; the processus vaginalis was obliterated and the structures forming the canal matted together.

Mr. WOOD had referred to his note-book and found that the case was a congenital hernia, and a very large one: the preparation, he thought, testified in favour of his operation, though the congenital forms of hernia were less satisfactory than others. Cure was due to union of the walls of the inguinal canal; it was important to get the conjoined tendon united to Poupart's ligament. If the cure lasted two years, he generally found that it was permanent.

CARD SPECIMENS.

Mr. BARKER: (1) Fracture of the External Condyle of the Femur. The condyle was completely detached, and there was no other lesion or damage to the capsule.

(2) Early Disease of the Vertebrae, commencing on the posterior aspect of the bodies.

The Society then adjourned.

MALARIAL KERATITIS.—At a meeting of the Rhode Island Medical Society, Dr. Miller related cases of an obstinate form of keratitis, which is sometimes one of the sequelae of malarial fever. It appears during or after convalescence, and varies in extent from a simple disappearance of epithelium to deep and wide-spreading ulceration. The most striking symptom is anaesthesia of the cornea, this being quite insensible to touch, compared with the healthy eye, although severe pain may be present. There is no increased tension of the globe. The best remedies, in addition to the antiperiodic and tonic treatment, are dropping into the eye an atropia solution and applying some finely powdered iodoform two or three times a day. Dr. Miller believes that he had formerly met with obstinate cases of keratitis arising from this source, but he had never suspected their origin until Prof. Noyes, of New York (where malarial disease is common), drew his attention to the subject.—*Boston Med. Journal*, February 9.

OBITUARY.

HANS IRVINE, M.B. UNIV. DUB.; FELLOW AND EX-PRESIDENT R.C.S.I.

His esteemed member of the profession died, after a short illness, on Wednesday, March 1, at the University Club, Stephen's Green, Dublin, at the ripe old age of seventy-nine years. Mr. Irvine retired from active practice some years ago, chiefly in consequence of a gradually increasing deafness; but at one time he was in the enjoyment of an extensive and lucrative surgical practice. So far back as 1833 he graduated as Bachelor of Medicine in the University of Dublin, and four years later he became a Fellow of the Royal College of Surgeons in Ireland, to the presidential chair of which corporation he afterwards attained. Mr. Irvine was at no time a member of the surgical staff of any of the large public hospitals of Dublin, but for several years he acted as surgeon to a private surgical hospital on the north side of the city, and there he performed various important operations. In the earlier period of his career he was also Lecturer on Anatomy and Surgery in a medical school then existing in Marlborough-street, Dublin. Mr. Irvine was never married, but his genial, friendly manners won him hosts of friends, and much regret is felt at his decease.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the degrees of the College, held on Monday, Tuesday, Wednesday, and Thursday, March 6, 7, 8, and 9, the following candidates were successful:—

For the Licence to practise Medicine—

Barnes, John Edward Snow.
Clarke, C. Granville, M.D., Bellevue Medical College, New York.
Dunlop, John Bryce.
Kennedy, Arthur.
MacCormack, Charles Joseph.
Porter, George Cardwell.
Thompson, William Christopher.

For the Licence to practise Midwifery—

Clarke, Charles Granville.
Dunlop, John Bryce.
MacCormack, Charles Joseph.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of medicine, and received certificates to practise, on Thursday, March 9:—

Beswick, Robert, Brighton.
Handford, Henry, Atherstone, Warwickshire.
Macaulay, Samuel, Fitzroy-avenue, Belfast.
Salmon, Arthur Guy, Truro, Cornwall.
Webber, Edward Samuel, Abergavenny, Mon.

APPOINTMENTS.

* The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

REGESS, DUNCAN, M.A., M.B. Cantab.—House-Physician to the Royal Hospital for Diseases of the Chest, City-road, E.C., *vice* J. Harper, M.B., whose appointment has expired.

BIRTHS.

HEMANN.—On December 28, 1881, at Rylstone, near Sydney, New South Wales, the wife of A. W. Bateman, L.R.C.P., of a son.

CH.—On March 12, the wife of Philip Birch, L.R.C.P., of Cromwell House, Stockport-road, Manchester, of a son.

HEMANN.—On March 1, at Albany-street, N.W., the wife of C. E. Hemmann, M.D., of a daughter.

EDHAM.—On March 9, at Westbury-gardens, Clapham-park, the wife of Joseph Needham, M.D., M.R.C.P., of a daughter.

EVES.—On March 10, at 18, Gordon-square, the wife of Frederick Treves, M.R.C.S., of a daughter.

MARRIAGES.

NOTT—FRASER.—On February 14, at Rawul Pindie, Major George Nasson Abbott, 19th Bengal Lancers, to Elizabeth Mary Stewart, third daughter of Deputy Surgeon-General A. H. Fraser, Army Medical Department.

ATLAND—CHARLEY.—On February 8, at Colombo, Ceylon, Surgeon John Atland, M.B., Madras Army, to Alice Maude, daughter of Edward Charley, Esq., of Melbourne, Victoria.

DEATHS.

BARNARD, GEORGE, M.R.C.S., Deputy Surgeon-General H.M. Indian Medical Service (Retired List), at Upper Norwood, on March 13, aged 54.

BLACKMORE, SUSAN, wife of J. T. Blackmore, L.R.C.P., at 21, Douglas-road, Canonbury, on March 12, aged 59.

FASSON, STANHOPE HUNTER, M.D., Surgeon-General A.M.D. (late Royal Artillery), at Aldershot, on March 11, aged 58.

MACKINTOSH, ANDREW WILLIAM, L.F.P.S., late Surgeon to the Royal Mail steamer *Pretoria*, at the residence of his brother, H. Mackintosh, Esq., Poole, on March 11.

NANKIVELL, ETHELDREDA, wife of Herbert Nankivell, M.D., at Pen-mellyn, Bournemouth, on March 13, aged 38.

NEALE, CHARLES, M.R.C.S., L.S.A., late of 25, Westbourne-terrace North, and of 4, Grafton-road, Plaistow, on February 19, in his 70th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BODMIN UNION, CORNWALL.—District Medical Officer. (*For particulars see Advertisement.*)

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Physician. Candidates must be graduates in medicine of one of the Universities recognised by the Medical Council of the United Kingdom, or Fellows or Members of the Royal College of Physicians of London; or Fellows or Licentiates of the King and Queen's College of Physicians in Ireland; or Fellows of the Royal College of Physicians, Edinburgh; but no candidate shall be eligible who practises, or is connected in partnership with anyone who practises, surgery, pharmacy, or midwifery. Applicants' names, with diplomas and testimonials, to be sent to the Secretary on or before March 29.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Vacancy in the Surgical Staff. Candidates' names, with qualifications and testimonials, to be sent to the Secretary on or before March 29.

GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Surgeon. (*For particulars see Advertisement.*)

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Obstetric Physician. (*For particulars see Advertisement.*)

KENT AND CANTERBURY HOSPITAL.—Resident House-Surgeon. Candidates must be registered under the Medical Acts as legally qualified to practise medicine and surgery, unmarried, and not more than forty years of age. The election will take place on April 6, at half-past one o'clock, when personal attendance of candidates is requested. Further particulars may be obtained on application to the Secretary at the Hospital. Testimonials of qualification will be received by the Board of Management up to March 31, by twelve o'clock at noon.

NOTTINGHAM DISPENSARY.—Resident Surgeon. Candidates must be unmarried, and be on the Medical Register as having obtained two qualifications—one to practise medicine, the other surgery, in the United Kingdom; and the candidate elected shall pledge himself to remain in office for a term of three years. The election will take place on April 3. Applications and testimonials to be sent to the Secretary, at the Dispensary, on or before March 25.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Hartlepool Union.—Mr. J. W. Crowe has resigned the Hartlepool District and the Workhouse; area 5078; population 15,423; salary £50 per annum. Salary for the Workhouse £65 per annum.

Williton Union.—Mr. Edward Noot has resigned the Porlock District: area 16,642; population 1096; salary £50 per annum.

APPOINTMENTS.

Amersham Union.—William Henry Brecknell, M.D. St. Andrews, M.R.C.S. and L.S.A. Lond., to the Beaconsfield District.

Cornwall Union.—Mr. John J. Beringer, as Analyst, *vice* Mr. Vitto.

Easthamstead Union.—Gerald E. Barron, B.M. Dub., L.R.C.S. Ire., to the Winkfield District.

Huddersfield Union.—Brook Thorp, M.R.C.S. Eng., L.R.C.P. Edin., to the Deanehouse Workhouse.

Monmouth Union.—Thos. G. Prosser, M.R.C.S. Eng., L.S.A., to the Monmouth District.

Salford Union.—Henry Knowles, L.F.P. & S. Glasg., L.R.C.P. Edin., to the Fourth District.

West Derby Union.—Richd. Wearing, M.D., C.M. Edin., to the Wavertree District.

Wisbech Union.—Wm. Henry Copley, M.R.C.S. Eng., L.R.C.P. Lond., to the Seventh District.

THE DENTAL HOSPITAL OF LONDON.—The annual meeting of this institution was recently held at the Hospital, Leicester-square, under the presidency of Sir Charles McGrigor, Bart., one of the trustees. In the report, which was unanimously adopted, the Managing Committee were enabled to speak satisfactorily of the progress of the institution as regards the funds. There had been a considerable increase in the income compared with that of last year, which they thought was in a great measure due to the fact that the general public are gradually becoming aware of the great necessity for dental hospitals, and are more disposed to

support them. It showed also the great benefits which the Hospital continues to afford upon the suffering poor, 30,799 cases having been treated during the year 1881. The Committee thought it a fit subject for congratulation that, for the first time in the history of International Medical Congresses, a section was accorded to dental surgery in the Congress of last year. But with this prominent honour came corresponding responsibilities, and they could not too strongly impress upon the Governors and the public that if our country is to retain its position, the educational facilities of this Hospital must be largely increased; but that, owing chiefly to the costly nature of the materials, this can only be done by a large expenditure of money. The Hospital is unendowed, and increased funds would enable it greatly to extend its usefulness.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At a special meeting of the College held on Tuesday, March 14, it was proposed by Dr. J. T. Banks, Physician to the Queen, seconded by Dr. Henry Kennedy, and unanimously resolved, that an address expressing the congratulations of the College on her recent providential escape be presented to Her Majesty the Queen.

MIDLAND MEDICAL SOCIETY.—At a meeting of this Society at Birmingham on March 1 (Dr. J. Manley, President, in the chair), Dr. A. H. Carter read a paper based upon the following interesting case of so-called ulcerative endocarditis. A lad, aged sixteen, was admitted into the Queen's Hospital, Birmingham, on January 30, suffering from acute rheumatism. He had previously been healthy. There were no complications, cardiac or otherwise. On the third day after admission pleurisy supervened on the right side, and two days later on the left side also, and the patient gradually lapsed into a well-marked typhoid state. On February 15, for the first time, a soft systolic murmur was heard over the præcordia, which could not be precisely localised. Five days later he became comatose and died. The post-mortem examination showed double pleurisy, small metastatic abscesses (embolic?) in both lungs, and several infarcts in both kidneys; an enlarged, softened spleen and perforative ulceration of the tricuspid valve also existed. The other cardiac orifices and valves were healthy. Mr. Bennett May read a paper on a case of injury to the kidney with hæmaturia, and supposed obstruction to the ureter by blood-clot. The symptoms indicating the latter were the sudden disappearance of blood from the urine, and the simultaneous occurrence of very severe pain in the loin. Mr. May, believing that urine was accumulating either in the pelvis of the kidney and ureter, or in the perinephritic tissue, introduced a fine aspirating needle on the outer side of the erector spinæ close under the last rib, aiming for the pelvis of the kidney. After passing in some distance fluid was tapped, and seven ounces of bloody urine withdrawn. Within a few hours blood reappeared in the urine, and the patient, a young man, got rapidly well. Mr. May discussed the question of the probable locality of the fluid drawn off, concluding with the inference that it was encapsuled in the tissues outside the kidney, into which it had escaped through a small rent in the pelvis.

BREAD PREPARED WITH SEA-WATER.—Dr. Sena has carefully studied the internal administration of sea-water, and asserts its efficacy in scrofula and other conditions of malnutrition, and its utility as a preservative in many other maladies difficult to combat. In order to avoid the objections to administering sea-water as such, it is used in the preparation of bread, which is preferable to the ordinary article, is less insipid, and may be kept longer. All the properties of the chlorides and iodides combine to make it at once a hygienic food and a therapeutical agent. The statistical data cited by the author show the results obtained in the Misericordia Hospital at Valencia, one of the finest charitable establishments in Spain, where this bread has been adopted. Comparing the number of patients cured after this bread had been made use of, with the number cured the year before, a considerable increase is noticed. Dr. Sena concludes—1. Bread prepared with sea-water is exceedingly useful in the prevention and cure of scrofula. 2. It possesses the same virtues as the liquid in corresponding doses. 3. It should be used by all charitable institutions near the coast. 4. Bakers in towns so situated should prepare it as a hygienic article of diet.—*New York Med. Record*, February 4.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 11, 1882.

BIRTHS.

Births of Boys, 1359; Girls, 1331; Total, 2740.

Corrected weekly average in the 10 years 1872-81, 2340·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	893	900	1793
Weekly average of the ten years 1872-81, } corrected to increased population ...	911·2	879·4	1790
Deaths of people aged 80 and upwards ...	...	...	7

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.
West ...	669633	...	5	2	...	25	...	...	...
North ...	905947	3	2	11	3	21	...	4	...
Central ...	232238	...	1	1	2	12	...	1	...
East ...	692738	2	6	4	4	57	...	3	1
South ...	1265927	14	20	10	6	60	...	7	1
Total ...	3816483	19	34	28	15	175	...	15	2

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	30·013 in.
Mean temperature ...	...	...	...	...	48·1°
Highest point of thermometer ...	...	...	...	...	55·4°
Lowest point of thermometer ...	...	...	...	...	33·4°
Mean dew-point temperature ...	...	...	...	...	44·0°
General direction of wind ...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	0·14 in.

BIRTHS and DEATHS Registered and METEOROLOGY during Week ending Saturday, March 11, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Mar. 11.	Deaths Registered during the week ending Mar. 11.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain in Inches.
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		
London ...	3893272	2740	1793	24·0	55·4	33·4	48·1	8·95	0·14
Brighton ...	109595	49	64	30·5	57·2	37·0	46·5	8·06	0·24
Portsmouth ...	129916	101	51	20·5	...	...	...	...	...
Norwich ...	83821	64	53	31·1	...	...	...	...	...
Plymouth ...	74449	47	26	18·2	55·3	35·0	48·8	9·34	0·43
Bristol ...	210134	133	92	22·8	56·5	38·5	48·7	9·27	0·43
Wolverhampton ...	76756	63	39	26·5	57·7	30·5	45·4	7·44	0·10
Birmingham ...	408532	332	132	16·9	...	...	...	...	...
Leicester ...	126275	119	68	28·1	60·8	35·0	47·8	8·78	0·03
Nottingham ...	193573	156	74	19·9	62·4	31·6	46·9	8·28	0·07
Derby ...	83587	57	46	28·7	...	...	...	...	...
Birkenhead ...	86582	62	30	18·1	...	...	...	...	...
Liverpool ...	560377	376	255	23·7	56·8	38·4	43·4	9·11	0·46
Bolton ...	106767	99	59	28·8	56·5	30·7	44·8	7·12	0·45
Manchester ...	340211	260	180	27·6	...	...	...	...	...
Salford ...	184004	152	69	19·6	...	...	...	...	...
Oldham ...	115572	86	40	18·1	...	...	...	...	...
Blackburn ...	106460	86	64	31·4	...	...	...	...	...
Preston ...	97656	81	55	29·4	...	...	...	...	...
Huddersfield ...	83418	59	41	25·6	...	...	...	...	...
Halifax ...	74713	44	43	30·0	...	...	...	...	...
Bradford ...	188101	131	94	26·1	57·4	35·2	46·7	8·17	0·38
Leeds ...	315998	239	156	25·8	58·0	35·0	46·8	8·23	0·19
Sheffield ...	290516	239	141	25·3	63·0	33·5	48·4	9·11	0·23
Hull ...	158314	112	62	20·4	60·0	29·0	45·8	7·67	0·15
Sunderland ...	119065	96	57	25·0	58·0	35·0	49·4	9·66	0·05
Newcastle ...	147626	92	65	23·0	...	...	...	...	...
Cardiff ...	86724	74	42	25·3	...	...	...	...	...
For 28 towns ...	8457514	6149	3891	24·0	63·0	29·0	47·3	8·50	0·24
Edinburgh ...	232440	167	99	22·2	56·4	30·2	44·1	6·73	1·45
Glasgow ...	514048	381	250	25·4	...	...	...	...	...
Dublin ...	348293	218	248	37·2	60·0	32·2	48·5	9·17	0·43

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·01 in. The lowest reading was 29·40 in. on Sunday evening, and the highest 30·20 on Saturday at noon.

APPOINTMENTS FOR THE WEEK.

March 18. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Professor H. G. Seeley, "On Volcanoes."

20. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. Francis Mason (President), Case of Sarcoma of the Septum Nasi eight years after Operation (living specimen). Dr. Stephen Mackenzie, "On the Treatment of Chronic Dysentery by Large Enemata of Nitrate of Silver." Dr. Fletcher Beach, "On Atrophy of the Brain in Imbeciles."

21. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Westminster, 3 p.m.
ROYAL INSTITUTION, 3 p.m. Professor John G. McKendrick, "On the Mechanism of the Senses."
STATISTICAL SOCIETY, 7½ p.m. Monthly Meeting.
ZOOLOGICAL INSTITUTE, 8 p.m. Mr. A. L. Lewis, "On the Relation of Stone Circles to Outlying Stones or Tumuli, or Neighbouring Hills." Mr. J. E. Price and F. G. Hilton Price (Treasurer), "On Excavations of Tumuli on the Brading Downs, Isle of Wight." Major-General Pitt-Rivers (President), "Note on the Distribution and Varieties of a Padlock."
ZOOLOGICAL SOCIETY, 8½ p.m. Specimens: Mr. Eve (for Mr. Edwards) -Sarcoma of Epididymis. Mr. Dent—Sequestrum in Head of Femur. Dr. Warner—Obstruction of the Bowels in a Marmoset. Dr. N. Moore—(1) Variations in Structure of Alimentary Canal; (2) Ulcer of Duodenum; (3) Calculus in Ureter. Dr. S. West—(1) Sarcoma of Tonsils; (2) Necrosis of Epiglottis. Dr. Turner—Hepatic Abscess. Dr. Ormerod—Hæmorrhage from Cerebral Tumour. Dr. Sangster—So-called Ichthyosis of the Tongue. Dr. Creighton—Tubercular Vomicae from an Eland. Mr. Sydney Jones—(1) Intestinal Obstruction caused by a Diverticulum; (2) Tumour of Shoulder-Joint (card specimen). Mr. Leech (of Manchester)—Dilatation of Heart (card specimen).

22. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 2 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 2 p.m. Lectures and Demonstrations: Dr. C. Theodore Williams.
ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Sir Joseph Fayrer, "On the Climate and Fevers of India." (3rd Croonian Lecture.)
ANTHROPOLOGICAL SOCIETY (London Institution) (Council Meeting, 7½ p.m.), 2 p.m. Report of Committee on Mr. Stevens's Case of Cerebral Tumour. Dr. H. Port, "On a Case of Hæmophilia with Joint-Disease." Mr. R. Clement Lucas, (1) "On Double Popliteal Aneurism, with Epithelioma of Tongue and Palate in the same Subject"; 2. "On a Case of Destructive Lupus of the Face."

23. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.
ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On the Resemblances of Sound, Light, and Heat."

24. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.
ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Dr. J. Burdon Sanderson, "On the Pathology of Inflammation." (1st Lumleian Lecture.)
SECRET MICROSCOPICAL CLUB (University College), 8 p.m. Mr. E. T. Newton, "On Fishes' Tails."
MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. Warrington Haward, "On Case of Removal of the Hypertrophied Spleen." Dr. Goodhart and Mr. Golding-Bird, "On a Case of Nephrectomy for Scrofulous Kidney." Mr. Barlow and Mr. Godlee, "On a Case of Extirpation of the Kidney for Calculous Pyelitis." Mr. Howard Marsh, "On a Case of Pyelitis: Exploration of the Kidney; Partial Removal; Death from Suppression of Urine." Mr. Pearce Gould, "On a Case of Spina Bifida cured by Injection of Iodine."
ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Professor W. E. Ayrton, "On Electric Railways."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Dr. W. J. Branch, St. Kitts, West Indies.—Letter and enclosure received.

F. W. Armitage, M.R.C.S., Tauranga, Auckland, New Zealand.—Letter and enclosure received.

Longevity.—The obituary of the *Times* of the 14th instant contained some remarkable illustrations of prolonged existence in eight persons, viz., six ladies and two gentlemen, whose united ages amounted to 676 years, giving an average of eighty-four years and a half to each. The oldest, as usual, was a lady, who had reached the great age of ninety-seven; the youngest of the same sex being eighty-one. The gentlemen's ages were eighty-three and eighty-five respectively. The same obituary recorded the deaths of thirteen septuagenarians ranging from seventy to seventy-nine, and averaging seventy-five years and upwards of eight months each.

An Old Member.—You must have been a member before September, 1843, to be eligible for the fellowship of the College of Surgeons without examination.

One Way of Spreading Disease.—A middle-aged woman, whose son was lying ill of typhus fever, lately offered for sale in several pawnshops in Dundee clothes which had not been disinfected, her object being to procure drink. On being prosecuted at the Dundee Police-court for this breach of the Public Health Act, she admitted having taken the clothes from her house, and pleaded that she had not considered the danger of her conduct. She was let off with a severe reprimand.

Meat Supply, London.—A Company is being formed, under the title of "The Direct American Fresh Meat Company (Limited)," for the purpose of importing meat into the United Kingdom, under arrangements enabling the Company to lay down American beef of prime quality, in Smithfield, at a trifle over 3½d. per lb., which, it is said, will return a good profit.

Football Casualties.—At a recent football match at Leeds, four accidents occurred, one of such a serious character that the young man had to be taken from the field, the game being only temporarily suspended.

An Infant Choked by the Top of a Feeding-Bottle.—A danger that may be run in leaving an infant in its cradle alone whilst sucking milk from a feeding-bottle has just been fatally exemplified at Manchester. Shortly after the parents left the child (an infant nine weeks old) a charwoman heard it scream, and on taking it up its appearance and suffering induced her to take it to a surgery. The assistant ordered the infant to be put into a warm bath, but it died before it could be got home. A post-mortem examination disclosed that death had been caused by the top of the india-rubber tube attached to the feeding-bottle having got into the child's throat. The verdict returned at the inquest was "Accidental death," and the jury expressed their opinion that the assistant was to blame for not having made a closer examination, which would probably have shown the existence of the obstruction.

Teetotal M.P.'s.—Mr. Caine, M.P., lecturing on intemperance a few days since, said that the teetotalers in the House of Commons numbered just thirty.

The Smoke Nuisance in the City.—Dr. Sedgwick Saunders, the Medical Officer of Health, has called the attention of the City Commissioners of Sewers to the complaints respecting the nuisance created by smoke, and this had been greatly aggravated at the time of the recent fogs. The chief complaints were against tavern-keepers, and the nuisance was made worse by the burning of refuse vegetable matter. The whole subject was referred to the Sanitary Committee.

Citizen.—The Metropolitan Board of Works, with the sanction of the Home Secretary, has modified the scheme of the High-street, Islington, Artisans' Dwellings, and the St. George the Martyr, Southwark, Artisans' Dwellings scheme.

Odd Fellows Society Office-bearers and Public-house Closing.—At the Whitechurch (Salop) Petty Sessions nine persons were summoned for being on licensed premises during prohibited hours. The defendants were office-bearers of the local Odd Fellows Society, and at each club-night remained after the proper time for closing. They contended that, according to the rules and regulations of the Order, they could remain until eleven o'clock. The magistrates took exception to this contention, remarking that no society rules could override the law of the land, but, being of opinion that the defendants had not wilfully brought themselves within the law, ordered the office costs only to be paid by them. Public-houses in which the meetings of similar societies and clubs are held require careful supervision by the police, in order to insure that the proper time for closing is strictly kept.

Health of Eastbourne.—The death-rate of this town for the last twelve months has been exceptionally low, giving an average under 13 per 1000. The total number of deaths was only 269. Of these one-fifth were of persons over sixty years of age, and more than one hundred of children under seven years; the greater portion of these being aged only twelve months or less.

ÆSTHETICISM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I read with pleasure the article on Æstheticism in your paper of March 11. That doctrine has its use and beauty, and if people pervert it to suit their own evil ends, so it has ever happened to all good teaching. The devil can cite Scripture as well to-day as yesterday. It is very possible that "imagination," which is sought to be enlisted to subdue animalism, may be seized on eagerly, and vilely used to be gatekeeper or procuress to the lords of hell. Æstheticism has its dangers. It may, after all, but stir the fires of sensuality, which old-fashioned asceticism tried to extinguish by annihilating human nature in the name of religion. We are *soul, mind, and body*, and any attempt to develop the one at the expense of the other must end in failure. Hamlet found his perfect man in Horatio, but I doubt whether his friend was very æsthetic, although I am sure he was a man and a gentleman, and very possibly a Christian.

I am, &c., A SEEKER AFTER TRUTH.

Artemus.—Certificates of the cause of death are received from registered medical practitioners. The plan is pursued, we believe, in reference to these certificates in Geneva, Brussels, Paris, and other cities, of appointing a medical officer to inspect each body, and to report independently on the cause of death to an appointed health officer, who has thus the opportunity of comparing the certificates from two sources. This is, no doubt, calculated to insure accuracy, and may be successful in towns, but in country districts it would be scarcely practicable.

C. C., Pimlico.—The main objects of the Ladies' Temperance Association are to induce ladies to take the pledge and to abstain from offering intoxicants to visitors or servants, and further to use their influence with their male relatives and acquaintances in the direction of total abstinence.

Colonial Items.—It is reported from Melbourne that there have been altogether twelve cases of small-pox in all the Australian colonies.——Sydney: The new Licensing Act, which provides for the closing of all public houses at eleven p.m. on week-days and throughout Sunday, came into operation at the beginning of the year, and its effect is considered beneficial.

W. O. N.—The river Lea is the source of the supply of water used for drinking purposes by no less than 44 per cent. of the population of the metropolis. The object of the scheme proposed for the interception and disposal of the sewage of the Lea valley is the prevention of the pollution of the river, and at the same time the relieving of the populous places within the lower portion of the valley from the existing difficulty which they labour under in the disposal of their sewage.

An Intolerable Nuisance.—A cowkeeper at Fulham has been summoned at the Hammersmith Police-court, by the District Board of Works, for disobeying the magistrate's order for the abatement of a nuisance on his premises. The defendant was in the habit of digging deep holes in his ground, and after removing the sand, throwing into them fish offal which he collected from various parts of the town, and covering them with a thin layer of earth, which was not sufficient to prevent an intolerable nuisance. He had been fined several times for disobeying the order, but the business was so lucrative that he defied the Board. Dr. Collier, the Medical Officer of Health, said he had seen the accumulations, and found them most offensive; the premises were being surrounded by new property, and it would be most injurious to the inhabitants to be exposed to the horrible smell. After hearing the defence, the magistrate fined the defendant 2s. 6d. for each of the sixty-one days the order had been disobeyed, with costs, adding that if he appeared there again the penalty would be 10s. a day.

"Old Mortality".—The exact spot where the celebrated Francis Glisson, M.D. (who discovered the "capsula communis," or vagina portæ), was buried is not known, except that it was on the west side of what was then called Fleet Market, now Farringdon-street, possibly somewhere in Farringdon Market. John Belchier, Surgeon to Guy's Hospital, was buried under the chapel of that institution, where we believe Sir Astley P. Cooper was also buried.

Leonard W., Southwark.—There are special Acts applying to the metropolis with regard to the slaughtering of cattle. New slaughter-houses cannot be established without the sanction of the local authority; they are to be regulated by by-laws and to be duly licensed.

The Administration of the Metropolitan Hospitals.—The Committee on Public Health of the Social Science Association have presented to the Council an elaborate report on the present state of the administration of hospitals, and the terms of a memorial which they recommend for presentation to the Home Secretary, praying for the appointment of a Royal Commission to inquire into the administration of the metropolitan hospitals. The Council have adopted the memorial, which is based on a series of resolutions pointing out the scope of the inquiry desired.

Archibald, Battersea.—The general supervision of offensive trades is expressly cast by law upon urban sanitary authorities. The initiation of legal proceedings is usually taken on the opinion or advice of the medical officer of health.

Materfamilias.—Revaccination is a physiological test, by which it may be shown whether the human body is liable or not to be attacked with small-pox. Vaccination does not adequately protect the individual for more than an uncertain number of years. The period of protection probably varies in different individuals.

COMMUNICATIONS have been received from—

Dr. ALLISON, Bridlington, Yorkshire; THE SECRETARY OF THE QUEKETT MICROSCOPICAL CLUB, London; THE SECRETARY OF THE OBSTETRICAL SOCIETY OF LONDON; THE SECRETARY OF THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST, London; THE SECRETARY OF THE DENTAL HOSPITAL OF LONDON; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE SECRETARY OF THE ANTHROPOLOGICAL SOCIETY, London; Dr. BYROM BRAMWELL, Edinburgh; Mr. JAMES DIXON, Dorking; Mr. REGINALD HARRISON, Liverpool; Dr. CRICHTON BROWNE, London; Dr. EWART, London; Mr. C. B. LOCKWOOD, London; THE HONORARY SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON; THE HONORARY SECRETARY OF THE PATHOLOGICAL SOCIETY OF LONDON; THE SECRETARY OF THE ROYAL INSTITUTION, London; Mr. SHIRLEY MURPHY, London; THE REGISTRAR OF THE ROYAL COLLEGE OF PHYSICIANS, London; Messrs. CHREEMAN, London; Professor HUMPHRY, Cambridge; Dr. RICHARD NEALE, St. John's Wood; Mr. E. M. HOLMES, Holloway; THE SECRETARY OF THE MIDLAND MEDICAL SOCIETY, Birmingham; THE SECRETARY OF THE HUNTERIAN SOCIETY, London; Mr. BACOT, Seaton; Dr. MATTHEWS DUNCAN, London; THE SECRETARY OF THE CLINICAL SOCIETY, London; Dr. L. LÖWENFELD, Munich; Mr. DAWSON, Coventry; Mr. FREDERICK STEVENS, Whitehall; Mr. J. KNOWSLEY THORNTON, London; Messrs. FIELD and TIER, London.

BOOKS, ETC., RECEIVED—

Les Névralgies, par C. Vaulair.—The Diseases of the Spinal Cord, by Byrom Bramwell, M.D., F.R.C.P.—Report on the Health, etc., of Kensington, January 29 to February 25, 1882—The Weather of 1881, by Edward Mawley, F.M.S., F.R.H.S.—Report on the London Water Supply—Vivisection and Human Surgery, by Sampson Gamgee, F.R.S.E.—Report of the Sussex County Lunatic Asylum, Hayward's Heath—Annual Report on the Health, etc., of the Borough of Maidstone—Moral (Affective) Insanity, by C. H. Hughes, M.D.—

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Philadelphia Medical Times—Revista de Medicina—Therapeutic Gazette—La Independencia Médica—Ciencias Médicas—Richmond and Twickenham Times, March 11—Todmorden Advertiser, March 10—North Carolina Medical Journal—Chicago Medical Review—Australian Medical Journal—American Journal of Neurology and Psychiatry—Canadian Journal of Medical Science—Australasian Medical Gazette—Chemist and Druggist—Western Medical Reporter—Journal of the Vigilance Association.

THE UNIVERSITY OF ROME.—Some time since, Prof. Baccelli, Minister of Public Instruction, appointed a Committee (consisting of Senators Brioschi, Moleschott, and Tommasi-Crudeli, and Profs. Bizzozero, Mosso, Vlachovich, Todaro, Toscani, Valeri, and Scalzi) to examine and report on his projects for the completion of the anatomical, physiological, pathological, hygienical, medico-legal, toxicological, and therapeutical institutes appertaining to the Medico-Chirurgical Faculty of Rome. The Committee has just reported on the sites which it deems best for the commencement of these erections.—*Gaz. Med. Lombardia*, February 25.

ERGOT IN DIABETES INSIPIDUS.—Prof. Da Costa, in the *Medical News*, January 7, observes that the advantage derivable from the use of ergot in this disease, first announced by him in 1875, has been repeatedly confirmed since by additional cases both in his own practice and in that of others. In five out of his six cases recovery took place, and in two of these has proved to be lasting.

RELIEF OF THE PAIN IN LEAD COLIC.—Dr. Geneuil, in a note to the *Bulletin de Thérapeutique*, February 15, after alluding to the various means adopted for the relief of the terrible pains of lead colic, as rubefaction by sinapisms, chloroform, electricity, and hypodermic injections of morphia, relates a case to which he was called in the country, where none of these means were at hand, and in which he succeeded in giving complete and permanent relief by a very simple procedure. Having directed a napkin to be heated at the fire, he first applied a towel wetted with almost ice-cold water to the whole surface of the abdomen, while the patient was shrieking with pain, and having retained it there for four or five seconds, rapidly replaced it by the almost burning napkin. The effect was like enchantment, the pain instantly disappearing and sleep following, without any return of suffering. The cause of the colic was at first obscure, but was found to depend upon the patient, who was an inveterate smoker, and had very often in the day to relight his pipe, which he did by means of matches coloured with chromate of lead.

ORIGINAL LECTURES.

A CLINICAL LECTURE

ON CROUPOUS PNEUMONIA IN CHILDREN.

*Delivered at the General Hospital for Sick Children,
Manchester.*

By HENRY ASHBY, M.D.,

Lecturer on Diseases of Children, Owens College.

GENTLEMEN,—During the year (1881) now fast nearing its close, twenty-six children, of ages varying from three to thirteen years, have been admitted into this hospital under my care, suffering from acute croupous pneumonia. This circumstance has given many of you an opportunity of examining for yourselves and watching the natural history of the disease as it occurs in infancy and childhood. That so many cases should have been admitted into one ward during a single year, will help to disabuse your minds of the idea, if such an idea existed, that croupous pneumonia is an infrequent disease of early life. True, it is a comparatively uncommon affection before the age of two years, that is during the period of the first dentition, and you will not often see such cases in our wards; but, in dispensary practice, infants of six months, a year, or a year and a half, may be found suffering from true attacks of this disease. I need not tell you that I have no intention to-day of attempting to cover the whole ground occupied by the pathology, clinical phenomena, and treatment of croupous pneumonia. My object will be attained by pointing out to you the more prominent features of the disease when it attacks children, the difficulties which sometimes surround its diagnosis, and the treatment in so far as it is modified by the age of its subjects.

In the first place, let us note that acute croupous pneumonia in children, in contradistinction to catarrhal, is generally primary and uncomplicated; that it generally attacks hitherto healthy children; that the attack is sudden, runs an acute course of a few days or a week, and then, so far as the fever is concerned, disappears as rapidly as it began. On the other hand, the catarrhal form supervenes upon an attack of bronchitis, scarlatina, whooping-cough, diarrhoea; runs a more protracted course; displays a tendency to become chronic; and is accompanied by a moderate fever of a remittent type. I must not, however, forget to add that sometimes croupous pneumonia accompanies or follows in the course of a nephritis, measles, or a typhoid attack, and in debilitated subjects, more especially the very young, is apt to become chronic, passing into a catarrhal state in consequence of the setting-up of epithelial proliferation in the alveoli, caseation, and fibroid changes.

In the second place, let us say one word concerning the pathological anatomy of the disease. You must not come to a children's hospital to learn practically the morbid anatomy of croupous pneumonia. Many specimens we can show you of catarrhal, but of croupous very few, for it is essentially a disease which, when uncomplicated, has a favourable termination. I need not do more than remind you of the nature of its morbid processes, for they are essentially the same in children as in adults. There is an inflammatory congestion of a lobe or some extended portion of it, a transudation of liquor sanguinis from the over-filled and distended capillaries into the alveoli, blocking them up with fibrine, red corpuscles, and leucocytes. In only one other organ of the body (the kidney), though on the surfaces of many organs, is this process of relieving over-distended capillaries by the exudation of certain portions of their contents possible. It is well, however, to remember that the high fever and the symptoms accompanying, are like the transudation of fibrinous material, the results of the inflammatory congestion of a portion of the lung; and that when the inflammation has ceased to extend, and the vessels have been relieved by emptying a portion of their contents into the alveoli, the temperature falls and the crisis of the disease has arrived. The later stage of the disease is

marked by the liquefaction and absorption of the fibrinous transudation. These changes in the lung, when they involve the surface, are accompanied, as in adults, by an inflammation of the parietal and pulmonary pleura, indicated during life, as we have had frequent occasion to observe, by the stitch in the side on coughing, and by the wincing and expression of pain on percussion or palpation. It is not a matter of very much importance for you to know that the right lung is attacked somewhat oftener than the left; but it is perhaps well to remember that in children the upper lobes are attacked nearly as often as the lower: it is therefore necessary, in examining the chest when pneumonia is suspected, to very carefully percuss the apex of the lung as well as the base. We must bear in mind also that the pneumonia, or at least the consolidation, may be centrally situated and covered by healthy lung, thus rendering it difficult or impossible to detect by means of auscultation and percussion. In a few days the central pneumonia may perhaps advance to the surface, and the ordinary physical signs appear. Very commonly only a part, and not the whole thickness, of a lobe is affected; so there may be signs of consolidation behind, and not in front. We may have to do also with a so-called "pneumonia migrans," in which perhaps the inflammation wanders erysipelas-like, during the course of a few days, from the base behind, round laterally to the apex in front, where it may come to an end (Henoch). I must also tell you that frequently we may observe a transitory form of pneumonia, which does not pass beyond the first stage, called by some "abortive," by others, more especially by some recent French writers (Woillez, Cadet), "congestion pneumonie aigue." Of the reality of this condition I have often been able to satisfy myself. Thus we may have an impaired resonance at an apex or base, with weak or distant vesicular, or perhaps faint tubular breathing, for twenty-four or forty-eight hours, with an elevated temperature, and then a complete disappearance of the physical signs. It is impossible that we should have had here a fibrinous exudation in the air-cells, but rather a condition of inflammatory congestion, in which the distended and tortuous capillaries have diminished the capacity of the alveoli, giving rise to faint breath-sounds and impaired resonance. This acute congestion may occur by itself, passing away without exudation, or may accompany a true pneumonia affecting an apex, while possibly the opposite lobe is in a condition of pneumonic consolidation.

Onset and Course.—The onset is almost always sudden. The mothers will tell you the day or perhaps the hour of the day when the child was taken ill. There is perhaps vomiting frequently repeated, diarrhoea, and always high fever. You will certainly be told that "he burnt very hot and was thirsty." With this there may be rigors, pain in the side or abdomen, short cough, somnolence, mild delirium or rambling at night. This history will remind you, no doubt, of the onset of some fever, as scarlatina; and sooner or later you will be called to the bedside to decide whether you have to deal with an acute pneumonia or scarlatina in their early stages. There will be high fever, perhaps the fauces and tonsils are gorged, and there may also be a blush about the neck and chest, and a careful examination of the chest may yield no positive results. In all such cases it is important to watch the respirations; in a case of early pneumonia they will mostly be increased in number, say from 40 to 70, with a pulse of 130 to 140, and a temperature exceeding 104°. In a case of scarlatina with a similarly high temperature and rapid pulse, we should find the respirations not so quick, and probably there would be some decided diagnostic appearances about the tonsils or skin. The delirium, somnolence, or convulsions are sometimes so pronounced that the inexperienced may be apt to pronounce the disease to be a meningitis, especially if there is an absence of physical signs, and you may be tolerably certain if one of your lay friends informs you that his child has had an attack of "brain fever," that it has had in reality acute pneumonia. This form of the disease has been termed by Rilliet and Barthez "cerebral pneumonia."

Temperature.—High fever is the most constant symptom attending the inflammatory stage. The pungent, burning skin of pneumonia has long been well known. A rapid rise to the neighbourhood of 104°, and oscillations between 104° and 105°, mark the course of the disease till the crisis comes. The inflammatory congestion of the lung during the first stage of the disease is doubtless the cause of the high fever,

and this high fever, with its accompanying tissue-changes and accumulation of waste products in the blood, gives rise to the delirium, somnolence, convulsions, and coma. The temperature, as a rule, falls by crisis: in a few hours it may fall from 105° to 97° or 98°; at other times it may take thirty-six to forty-eight hours to reach normal, and may be followed by a second or third temporary rise. The crisis occurs in the majority of cases between the sixth and the eighth days, though it may be as early as the fourth or as late as the ninth. The crisis is sometimes followed by perspiration and symptoms of collapse, but more often the child is completely changed in all its ways, and is at once ready for its toys. The crisis marks the time when the inflammatory process comes to an end. The period of resolution, presuming there are no further attacks of congestion and no important epithelial changes in progress, is feverless.

The respirations are increased in number, amounting, perhaps, to sixty or even seventy per minute. Many of the extra muscles of respiration, including the *alæ nasi*, are set to work. As a rule, there is no sucking-in of the chest-wall or retraction of the tip of the sternum, as in croup, or stenosis of the larynx, or trachea; but the respiratory movements are short and shallow. The cough is short and hacking; the rusty, fibrinous sputum, so common in the pneumonia of adults, is absent or rarely to be seen in children under seven or eight years old. Children, as you know, swallow their sputa; and it is only as they grow older, or are taught by the hard experience of a chronic bronchitis or phthisis, that they learn to expectorate.

Physical Signs.—We may classify our pneumonias after Cadet, according to the time when the physical signs make their appearance.

1. Pneumonia with physical signs from the first.
2. Pneumonia with tardy physical signs.
3. Pneumonia without any physical signs.

To the first division belong most of the attacks of pneumonia in adults. Within a few hours of the rigors and the stitch in the side, fine crepitation may be heard, and possibly some impaired resonance demonstrated. This, however, is the exception in children. For the most part for a day or two, or even for four to six days, the physical signs may be latent or only slightly developed. In some cases—those belonging to the third division—physical signs may never be present, or are only slight and evanescent. In both of the latter cases we are driven to the conclusion that at first the pneumonic consolidation is central and does not involve the surface, and that in the course of a few days, more or less, it makes its way to the surface, and then gives abundant signs of its presence. In other cases it may remain central from first to last. The first physical signs to be observed in such a case are impaired resonance and weak breathing. By carefully comparing an apex or base with the opposite, now percussing lightly, now more vigorously, you may perhaps detect a higher pitch or more toneless sound on one side than the other. On applying the ear to the chest-wall you will note that the breath-sounds are faint, and very probably the expiratory act is prolonged and of a bronchial character. With this there may be moist subcrepitant or indistinct râles. The fine, sharp crepitation, so well known in connexion with adults, you will constantly miss in children. Later you may find well-marked dulness no longer difficult to detect, with tubular breathing and sharp consonant râles. Vocal resonance and fremitus are not so readily obtained in children as in adults, on account of the weakness of their voices; and in younger children you will constantly have to seize the moment of crying to ascertain the presence or absence of these signs. These physical signs, when well marked, nearly always survive the crisis; and it is important to remember this when a child is first seen at the fag-end of an acute attack, when the temperature may be normal, and yet tubular breathing and dulness be present at an apex or base, and we possibly think we have a chronic affection to deal with.

A pleuritic rub may sometimes be heard, and often pressure in an intercostal space or sharp percussion over the affected part will reveal the presence of a pleurisy. This complication, however, is generally unimportant.

It is, then, tolerably clear that at times you will have to make a diagnosis of croupous pneumonia from a consideration of the history, the fever, cough, and respirations, in the absence of physical signs.

(To be concluded.)

THE DIAGNOSIS OF DISEASES OF THE SKIN.

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of the Skin.

LECTURE VI.

B.—ORGANIC AFFECTIONS.

I.—THOSE DEFINED BY UNIFORM CAUSES.

1. *Parasitic Affections of the Skin.*

A.—*Cutaneous Affections due to the presence of Vegetable Parasites (Dermatophyta).*

THESE have certain characters in common, to which it may be well in the first instance to allude.

1st. They are all dependent upon the presence of fungous growths, which excite inflammatory reaction at the parts involved.

2nd. They are all more or less contagious, though some persons are more susceptible to their influence than others, and it may be laid down as a rule that those who are debilitated, broken down, or scrofulous (or syphilitic, say some) are more liable, *cæteris paribus*, to suffer, when infected, than perfectly healthy persons.

3rd. But while this is so, it has never been my lot to see a case of one parasitic disease giving rise to another, as some assert, though it is quite possible for a patient who affords a suitable soil to suffer at one and the same time from two separate parasitic affections. The fungi, in my experience, always breed true.

4th. The eruption which results has in almost all cases a great tendency to appear in the form of round spots or patches, or in circles or segments of circles.

5th. Skin-diseases of Constitutional origin are generally symmetrical (*i.e.*, if there is eruption on one side of the body, there is usually more or less on the corresponding part of the other side); the disease, at all events, is not one-sided. A Parasitic skin-disease, on the other hand—although we have seen that certain constitutional states are favourable to its development,—is dependent upon a local cause (the fungus), and is therefore generally non-symmetrical. This feature may therefore sometimes help us in the diagnosis of a doubtful case, as, for example, between Eczema nummular and ringworm.

6th. Parasitic Diseases are curable by the use of remedies which destroy the fungus (such as a lotion of perchloride of mercury, two grains to the ounce), provided we are able to reach it, which, however, it is almost impossible to do if it has penetrated the hair-follicles and infiltrated the hairs.

7th. When the eruption disappears, although pigmentary stains may for a time be left, there are, as a rule, no permanent traces of it in the shape of cicatrices, unless as the result of improper treatment, or unless the disease is on hairy parts, and has destroyed the hair-follicles.

8th. One attack offers no security against another, although, after the cure is complete, there is no tendency to a relapse, as in the case of many constitutional skin-diseases, unless as the result of re-infection.

There are four diseases of the skin dependent upon the presence of four separate fungous growths, viz.:—1. *Tinea* (a) *favosa*. 2. *Tinea trichophytina*. 3. *Tinea versicolor*. 4. *Tinea imbricata*.

1. *Tinea favosa* (Favus—Honeycomb—ringworm).—*Parasite*, *Achorion Schönleini* (so called in compliment to Schönlein, its discoverer).—There are three varieties of *Tinea favosa*, viz.:—(a) Favus of hairy parts. (b) Favus of non-hairy parts. (c) Favus of nails.

The following are the microscopical characters of the *Achorion Schönleini*. (b) The field is dotted over with

(a) *Tinea*, signifying a moth or woodworm, is the generic term for skin-diseases produced by fungi.

(b) In examining hairs or morbid products for fungous growths, place two or three hairs or a little of the *débris* upon a glass slide; add a drop of liquor potassæ, protect the specimen with a thin glass cover, and, after waiting for a few minutes, examine with a microscope, magnifying, say about 300 diameters.

innumerable little bodies—spores or sporules—about $\frac{1}{3000}$ of an inch in diameter: they are oval or rounded, or have a constriction in the middle, and frequently granules or nuclei are seen in their interior. Tubes, too, from $\frac{1}{4000}$ to $\frac{1}{15000}$ of an inch in diameter, often in great abundance, are observable, many of which are branched; they may be empty or with granular contents; many of them are simple, but some are jointed, as if originally formed by numbers of spores attached to one another like the pieces of a necklace. In addition to the spores and tubes an immense quantity of granular matter—stroma—is seen, and in special abundance if a portion of a favus cup (afterwards to be described) near its circumference is examined: this constitutes the early stage of the spores. When the disease, as is usual, is situated upon hairy parts, the hairs are found to be more or less impregnated with the parasite, especially towards their roots, though not nearly to the same extent as in cases of ordinary ringworm.

This disease, which is decidedly contagious, usually makes its appearance in children, especially in those who are scrofulous, debilitated, or uncleanly; hence it is generally, though not exclusively, met with amongst the lowest classes of the community.

(a) *Favus of hairy parts* (*Tinea favosa capitis*—*Favus pilaris*). This variety, although it may be met with upon any part of the surface which is provided with hair, is usually only seen upon the scalp, and the symptoms are best studied about a week after all crusts have been removed temporarily by treatment (poultices, etc.). Little yellow specks are then generally observed here and there, at the orifices of the follicles, which, on examination with a hand-glass, are seen to be minute, round, bright yellow crusts, depressed in the centre, surrounded by an inflammatory areola, and through the centre of each one or two hairs pass. These crusts, at first almost semi-fluid, gradually become more consistent, and increase to the diameter of three or four lines, but still retain the same shape and colour. With care, the cup can be readily raised from the subjacent structures, and the shape of the under surface is then seen to be convex, fitting into a depression in the skin, which is covered with a thin layer of epidermis, and which soon fills up: unless the hair is completely removed along with its bulb, and a parasiticide applied, a new cup shortly replaces that which has been removed. These crusts may be *isolated* (*Favus lupinus*), or they may be *confluent*: in the latter case they are apt to encroach upon one another, the circular depression may be lost, and they may become partially detached, thus giving rise to the appearance of irregular masses of yellow crusts; but even then the edges of the patches are seen to be composed of a series of little segments of circles, the remains of the original cups (*Favus scutulatus*).

Generally more or less *itching* is present, although it is rarely excessive, and the odour emanating from the patches is very peculiar, and appropriately described as being “mousey” in character. The *appearance of the hairs* springing from the affected parts is seen to be altered; owing to the ravages of the fungus and the arrest of the sebaceous secretion they lose their shining appearance, become thickened, dry, ash-grey or reddish, brittle (though not so much so as in ringworm), and break readily, or split longitudinally, or appear twisted, and are more readily extracted than in health. If the disease is neglected, the follicles, owing to the pressure, become obliterated, permanent alopecia results, and the scalp has an atrophied, depressed, dry, and parchment-like appearance. The irritation of the fungus not unfrequently leads to the development of a pustular eruption, which, however, forms no necessary part of the disease, to enlargement of the neighbouring glands, and even to abscesses. The eruption may be very limited in extent, but in many cases it has a tendency gradually to involve the greater part of the scalp, unless, perhaps, at its edges; and it sometimes happens that the patient, by first scratching it and then other parts, may transfer the disease by infection to the non-hairy parts of the body.

DIAGNOSIS.

The disease which is most likely to be mistaken for Favus of the head is Eczema impetiginodes, but the following table should help to clear up the diagnosis:—

Tinea Favosa Capitis.

1. Contagious.
2. Though pustules and crusts may appear from irritation of the scalp, favus cups also usually discovered.
3. Odour characteristic and “mousey.”
4. Hairs dull, dry, discoloured, and easily extracted.
5. Many of hairs, sooner or later, apt to be destroyed, leaving permanently bald, atrophied patches.
6. Fungus readily detected in the crusts and hair with the microscope.

Eczema Impetiginodes Capitis.

1. Not contagious.
2. Pustules or crusts, due to the drying-up of their contents, always present; but never any cups.
3. No characteristic odour.
4. Hairs healthy.
5. Some of the hairs may fall out temporarily, but no permanent alopecia unless from gross neglect or mismanagement.
6. No fungus to be discovered.

The diagnosis is rendered more difficult if, as often happens, the head is cleared of crusts before the patient is brought for advice; then the redness of the scalp, studded perhaps with pustules, the result of the irritation of the fungus, or of poulticing, gives a superficial appearance of eczema impetiginodes. But in favus the deep red, sharply demarcated surfaces, covered by thin shining epidermis, is very different from the bright-coloured, diffused redness of eczema. In the former, too, the alterations in the appearance of the hairs are characteristic, while the fungus is detected in some of them with the microscope, and often here and there some permanent alopecia may be discovered. If we are still in doubt it is desirable to ask the patient to leave the head untouched for a fortnight, which will allow time for the disease to reappear in sufficient extent to render its diagnosis a matter of little difficulty.

(b) *Favus of non-hairy parts* (*Tinea favosa epidermidis*).—This variety makes its appearance in the shape of roundish spots, which are bright red in tint, and at first very minute, but they soon increase in size, and may reach that of a crown-piece; they are, in the advancing stages, considerably elevated, and soon become somewhat itchy and scaly. As they increase in size, they tend to heal in the centre, and to spread with an elevated edge, so that at last red, elevated, scaly circles of eruption are left, enclosing skin which is comparatively healthy. On careful examination, the nature of the disease can sometimes be suspected, owing to the discovery amongst the scaly *débris* of yellowish streaks (the fungous matter); and if the parasite penetrates into a hair-follicle yellow cups make their appearance, just as on hairy parts, which to the careful observer at once betray the nature of the affection. In the absence, however, of favus cups and of yellow streaks, the appearances are almost identical with those of ringworm of the body (see *Tinea circinata*), and mistakes are often made, even by the most experienced. This is one of the principal reasons for the opinion that *Tinea favosa* and ringworm may be produced by one and the same parasite. The diagnosis between *Tinea favosa epidermidis* and *Tinea circinata* will be described under the latter affection.

(c) *Favus of the nails* (*Tinea favosa unguium*).—This condition, which is only exceptionally met with, is due to the deposition underneath the nail of some of the fungus, owing to the scratching of an affected part. Here it readily takes root, and germinates, being placed most favourably for the purpose between the superficial and deep epidermic layers, the nail forming the superficial one. At the affected part, which is always at first at least near the free edge, the nail becomes thickened and opaque, and gradually assumes a yellowish tint, owing to the presence of the fungus underneath. As the parasitic elements increase they press upon the nail and lead to further changes; the normal longitudinal striæ become very apparent, fissures are formed, and by degrees the nail becomes more and more thin, until at last the fungous matter appears upon the surface.

The occurrence of disease of the nails in persons suffering from favus of other parts should at once arouse our suspicions; and even in those very rare cases in which the nail disease is primary, the above characters, coupled with a microscopic examination of the morbid products, should lead to a correct diagnosis.

2. *Tinea Tricophytina* (Ringworm).—Parasite, the Trico-

phyton.—There are four varieties of this disease, viz.:—
(a) Ringworm of the head. (b) Ringworm of the body.
(c) Ringworm of the beard. (d) Ringworm of the nails.

The following are the microscopical characters of the trichophyton. The spores are roundish, pretty uniform in size, about the $\frac{1}{7000}$ inch in diameter, and are either isolated, or more frequently in chains, while the tubes are scanty in proportion to the spores. When the hairs are affected they become very much thickened; the bulbs become more and more disorganised, and are at last destroyed altogether. And the hairs are apt to break near the surface of the skin, their ends having a ragged appearance like pieces of wood broken across. The longitudinal fibres of the hair are separated by masses of spores, which at some points may be in such profusion as to lead to the formation of nodosities. The medullary portion of the hair becomes disorganised and, owing to the pressure exerted upon it by the fungus growth, ultimately disappears altogether.

This disease is even more contagious than *Tinea favosa*, especially in the case of children, and in those who are debilitated and scrofulous, but it occurs amongst all classes of the community, and is not so directly favoured as in the case of the latter disease by inattention to cleanliness.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ON TYPES OF IMBECILITY.(a)

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BEFORE proceeding to the immediate subject of my paper it will be necessary to say a few words on the classification of cases of imbecility. Many systems have been adopted. Some authors, as Esquirol, base theirs upon the power of speech possessed; others, as Bucknill and Tuke, classify according to the degree in which the reflex and volitional functions are manifested. My own is chiefly based upon certain characters existing in imbeciles, the system being one which I have found useful in demonstrating the disease to students. I classify under the headings of "congenital" and "acquired" imbecility, including under the former those cases occurring at the time of birth, under the latter those supervening afterwards.

The classification is as follows:—

IMBECILITY.

- | <i>Congenital.</i> | <i>Acquired.</i> |
|---------------------------------------|-------------------------|
| 1. Simple congenital. | 1. Eclampsic. |
| 2. Microcephalic. | 2. Epileptic. |
| 3. Hydrocephalic. | 3. Hydrocephalic. |
| 4. Scaphocephalic. | 4. Paralytic. |
| 5. Paralytic. | 5. Inflammatory. |
| 6. Cretinism—sporadic
and endemic. | <i>a.</i> Hypertrophic. |
| | 6. Traumatic. |
| | 7. Cretinism—endemic. |

Before proceeding to describe types of imbecility, I will call your attention to the points to be observed in diagnosing the disease.

In diagnosing imbecility in infancy, we should observe the size and shape, with reference to symmetry, of the head (heads below 17 in. in circumference rarely containing much intelligence); whether there is inability to support it (so that it hangs back motionless), inability of the spine to support the body, any flaccidity of the limbs, any difficulty in swallowing the milk drawn from the breast; whether the infant is capable of grasping one's hand, any notice taken of passing objects, and what capability of following with the eyes, any notice of sound, any voice. The facial aspect should also be marked (that the patient is of low type can often be seen at a glance); the presence of strabismus or nystagmus should also be noted, as well as the distance between the eyes, these being too nearly approximated in microcephalic and too widely separated in hydrocephalic cases. The position (oblique or not) of the eyes should be noted, the former being found in the Mongolian variety. The integument about them should be examined for epicanthic or semilunar folds of skin at the inner canthi; and

the position of the ears, whether implanted far back or not, should be observed.

Later on we compare the child's intellect with that of other children of the same age; we observe whether the fontanelles are closed; the shape of the palate—a highly arched, or, on the other hand, an elongated one being found in congenital imbecility; the grasping power of the hands—often little in imbeciles; the presence or absence of automatic movements, contractures, or spastic rigidity—these symptoms being found in cases of low type; whether there is any flow of saliva from the mouth; the state of the circulation—often feeble in imbeciles; the amount of development of the senses; the presence or absence of will; the presence or absence of epilepsy.

To the classification of imbecility above given I shall adhere, and I now, without further preface, proceed to describe types of imbecility, endeavouring to impress my descriptions more fully upon you by means of photographs of cases.

SIMPLE CONGENITAL IMBECILITY.

By this term I mean that the patient was born an imbecile, without any obvious defect or abnormality of skull or limbs. This classification includes some cases of a very low, and others of a fairly high, type. I have with me illustrations of all. The first eight photographs which I hand round illustrate low-type imbeciles, and include two cases of Mongolian imbecility, or furfuraceous cretins—the former name being given them by Dr. Langdon Down; the latter, which I consider a bad one, by the late Dr. Seguin, of America. You will see at a glance that all eight cases are imbeciles of low type. Note the animal expression, thick lips, pug nose, and small forehead in some; the open mouth, large ears, and depressed look in others. Here is a description of a congenital imbecile of low type:—N. M., aged eleven years, is a fairly nourished child with good use of her limbs, very dull in intellect, dirty in her habits, not subject to fits. She cannot speak, but makes a sound like "ah." She can eat with a spoon, but not wash, dress, or do anything. There is some power of observation, but very little of imitation or attention. She does not know a single letter or colour. She has been under training for three years, and has made absolutely no progress. The height of her accomplishments is to scribble on a slate.

The six which I now send round are photographs of cases of a higher type. Two of these are of the Mongolian variety.

The chief characteristics of this type are broad features, an upward slant to the outer droop of the arch of the eyebrows, as seen in the Chinese, a flattened bridge of the nose, tongue rough and presenting transverse fissures, rough skin, and hands and feet short and broad.

The patient E. R., aged eleven years, presents these characteristics. Her mother is a delicate woman, subject to hysterical attacks. The case is supposed to be due to a fright of the mother when pregnant bringing on a hysterical fit. She became very spiteful just before the birth of her child. The maternal grandmother died of apoplexy, and there is a history of phthisis on the mother's side. The parents are temperate. The child is of a cheerful disposition, but very restless and destructive. She is able to talk a little. On admission she did not know a single letter or colour and had no knowledge of figures. She has made some progress during the four years she has been under training, having learnt the alphabet and many words which have been taught her on the word method of teaching reading. She can spell many words as well, has learnt some arithmetic, and knows all the colours and several forms. Can sew a little. This child will, in course of time, be sufficiently improved to send home, but she will have to be under the care of some one during the whole of her life.

Two of the patients have a vaulted palate, and one has a protruding alveolar arch. The vaulted palate is fairly often present in cases of imbecility, but as it is seen in persons of perfect mental condition, the only inference to be drawn from its presence, is, I think, that if we find it in an imbecile patient it enables us to say the case is a congenital one. Other characteristics, present or absent, in addition must of course guide us in giving a prognosis.

The next seven photographs represent cases which have much improved. On comparing these with those of low

(a) Paper read before the Harveian Society.

type the difference in the facial expression is most marked. All have a fairly intelligent look, and the expression on the whole is pleasing. The boys have all learnt trades in the Asylum, and are able to earn a fair amount by them, and so contribute towards their maintenance. The girls are occupied in domestic work.

The cases of E. H. and T. B. will show what can be done by proper care and training.

E. H., aged thirteen years, is a well-nourished, dark-complexioned girl, well behaved, but lazy. She can speak fairly well. On admission she could spell words of two letters, write a few letters, knew a few colours, and could add two and two together. She is now able, after two and a half years' training, to read words of four and five letters, add to twenty, do easy multiplication tables, and make pinafores and other articles of clothing. She works in the dormitory every morning before going to school. Her father was a delicate, weak-minded man, and her paternal uncle was insane. She was born prematurely owing to a fall of her mother, was a delicate child, and did not walk till two, or talk till seven years old.

T. B., aged seventeen years, a fairly nourished boy, of dark complexion, usually of a quiet disposition, but sometimes obstinate and inclined to be combative. On admission, could read words of one syllable with a few letters, do easy multiplication tables, and knew all the colours. After three and a half years' training, he has learnt to read and write fairly, compose a letter, do compound addition, subtraction, and multiplication sums, and acquire the trade of a shoemaker. He was removed from the school a year ago, and now passes the whole of his time in the shop, and is an excellent shoemaker. He has a fair knowledge of music, and plays in the fife-and-drum band.

MICROCEPHALIC IMBECILITY.

These are cases where the head is smaller than normal. The first of the two photographs which I send round represents a case whose head measured only 12 in. in circumference, and her brain was found after death to weigh only seven ounces. This is a photograph of it. By comparing these two outlines of heads—a microcephalic and an ordinary one—you will see the great difference between them. With the exception of a brain weighing only one ounce, taken from a microcephalic baby, it is the smallest one I have ever seen. To a great extent this patient led a vegetating life, but she learnt to recognise those around her, became cleanly in her habits, and made an attempt at articulation. Although she could move her limbs, she could not stand, and she had no idea of feeding herself. The second photograph is that of a boy aged fifteen, who has a sister, also microcephalic, in the Asylum. His head measures $17\frac{3}{4}$ in. in circumference, and that of his sister $16\frac{1}{2}$ in. He is lively and good-natured, as are nearly all microcephalics who are able to run about, but he knows and has learnt very little. He has been under training for two years, but has made scarcely any progress; is unable to speak, and can only make ejaculatory sounds; has learnt the manual alphabet, can spell a few words on his fingers, and match a few colours. His sister, although her head is smaller, has made more progress, and of the two has more intelligence, though, of course, small in amount. I have several microcephalics under my care in Darent Asylum, and have seen others with heads measuring from $15\frac{1}{2}$ in. to $17\frac{1}{2}$ in., but none have made much progress under training, and, in fact, from the small amount of brain and deficient quality of it, little can be expected.

It was formerly held that this condition was due to the sutures of the skull closing in prematurely, and so hindering the growth of the brain; but, in contradistinction to this, we have the fact that many microcephalic imbeciles have been found with open sutures. "In those cases where the sutures have closed in before birth, the question still remains, whether the brain ceased to grow because the sutures were closed, or whether the sutures closed in because the brain ceased to grow, or whether the brain and its coverings ceased to grow from a common cause." (b)

HYDROCEPHALIC IMBECILITY.

We are now about to consider those cases which are hydrocephalic before birth. All cases of hydrocephalus do not, of course, become imbecile. Many who escape recover, but

there are a few who do not die, and do not recover, but become imbecile. The hydrocephalic head is quite different from that found in rickets. In hydrocephalus the fontanelle is raised; in rickets it is depressed, and the head is elongated in the antero-posterior diameter. In hydrocephalus it approaches the globular form, and the antero-posterior and transverse diameters are nearly the same. The widest circumference is often at the temples, where there is sometimes a perceptible bulging above the usual place of greatest width around the superciliary ridges. This was well-marked in the case whose photograph I hand round.

Imbecility is not often complicated with rickets. Out of 1000 cases, which I have had under my care, I have only seen three cases of well-marked rickets. The following is a case of congenital hydrocephalic imbecility:—

C. O., aged twelve years, is a well-nourished boy, of fair complexion, whose parents are fairly healthy people. There is no history of phthisis, but his paternal uncle has had three fits, and is now paralysed and his speech affected. The boy had a large head when born, and the mother had a tedious labour in consequence. She ascribes the condition to fright during pregnancy, on seeing a man with a large head and no use in his legs go along Oxford-street, piloting himself along with his hands. The boy is good-tempered, but very listless, and, being weak in his legs, will sit all day long in a chair if allowed to do so. He cannot speak, but makes a number of sounds, the meaning of which cannot be discovered. He has some power of observation, though but little of imitation and attention. He does not know a letter or colour. His head measures $24\frac{1}{4}$ in. in circumference, 17 in. in transverse diameter, and $16\frac{1}{4}$ in. in the antero-posterior diameter, thus bearing out the remark I made above, that the transverse and antero-posterior diameters in hydrocephalus are nearly the same. He died twelve months ago of lobular pneumonia, and his brain was found to contain thirty-six ounces of fluid, or nearly two pints. The lateral ventricles were enormously dilated, measuring 7 in. in length and $3\frac{1}{2}$ in. in width. Above them the brain-substance was very thin, being not much more than $\frac{1}{4}$ in. in thickness on the convex surface. The convolutions were exceedingly coarse, some of them measuring 1 in. in width, so that there was deficiency in quantity as well as in quality. He made absolutely no progress during the year of his residence in the Asylum.

SCAPHOCEPHALIC IMBECILITY.

These cases have a keel-shaped head, but whether produced by difficult labour or not I have been unable to ascertain, as the patient I have under my care—the only one I have ever seen—has no friends; and hence I am unable to obtain the cause. F. R., aged eleven years, is a fairly nourished boy, of dark complexion, and depressed appearance. His head measures $22\frac{1}{4}$ in. in circumference, $12\frac{1}{2}$ in. transversely, and $16\frac{3}{4}$ in. antero-posteriorly; so that we have four inches difference between the two last measurements. The outline shows the shape of the head very well. He speaks indistinctly, and during the time he has been with us has made little progress. He has learnt only one letter, and can write only two. He can add one and one, count to twenty, do some easy multiplication tables, and has learnt a few colours. Little improvement, I am afraid, can be expected.

PARALYTIC IMBECILITY.

I now refer to cases paralysed at the time of birth. Generally, paralytic imbeciles make fair progress mentally if there are no fits and the injury to the brain is not great in amount, but physically (with regard to the paralysed limbs) little. The following case—G. L., aged ten years—was born with the left arm contracted and useless, and little power in the legs, though he could move them about. The imbecility is supposed to be due to a fright of the mother during pregnancy. The father is intemperate, and at times suffers from severe headache. The paternal aunt is epileptic. The child cannot speak, but cries when wanting anything. He is subject to fits, and his mental capacity is very small. At his death, which took place six months after admission from exhaustion due to repeated fits, there was found to be a space between the dura mater and cerebrum filled with fluid, taking the place of the brain, which had undergone atrophy. In this case no cause (I mean a clinical one) could be assigned for the condition; but in another one which I have under treatment, who was born with paralysis of the right side, the mother, when pregnant, fell with great violence, striking

(b) Dr. Ireland, "Idiocy and Imbecility."

her side against a wall, and becoming insensible. In that case there was flattening of the side of the cranium opposite to the paralysis. The boy is fairly intelligent and makes good progress.

SPORADIC CRETINISM.

This type is fairly common in this country, and is characterised by the presence of fatty tumours in the posterior triangles of the neck, with, usually, absence of the thyroid gland. The patients are stunted in growth and deficient in intelligence. The four photographs which I hand round represent types of this disease. They all present the same characters, viz. (in addition to those already mentioned), a broad face, pug nose, thick lips, full and flabby cheeks, short arms and legs, and large hands and feet. They are usually very fat. The boy of whom two photographs are shown was fifteen years old at the time of his admission into the Asylum, and presented the same configuration of body at birth. The father is a weak-minded but temperate man, who worries himself a good deal. The mother is a Dutch woman, subject to severe headache. There is a history of consumption on both sides of the family. The patient was short and stout, usually good-tempered, but at times pugnacious. He had good use of his limbs, but was slow in his movements. Could talk, but usually spoke very little. He was under training for three years, but learnt scarcely anything either in school or shop. At his death, which occurred two years ago, the same appearances were found as in the girl, viz., fatty tumours, and no thyroid gland. The convolutions of the brain were coarse, and the structure simple. Little improvement occurs in this class.

(To be continued.)

CASE OF

FOREIGN BODY IN THE RIGHT BRONCHUS THREE WEEKS—REMARKS.

By ABRAHAM HARRIS-BICKFORD, M.D.

W. R., aged twelve, was amusing himself at school in the afternoon of January 17 last, with an ordinary metal pin about an inch and a quarter long, having on its end, in proximity with the head, a piece of folded india-rubber band (used for encircling papers) the size of a pea. He had been biting the rubber, and inadvertently placed the whole thing in his mouth, when a fellow-pupil did something which caused him to laugh; he at once found the pin wanting, and thought he had swallowed it. In the evening I saw him, when he complained of slight uneasiness in his throat, not amounting to pain or pricking even in swallowing.

With the aid of the laryngoscope, and by careful introduction and withdrawal of a bristled probang, I satisfied myself that the tracts explored were free from any foreign body. On inquiry I found that he had coughed occasionally since the mishap, *but not before*. Then, with the aid of the stethoscope, I discovered a slight bruit over the right bronchus as compared with the other side, but no discomfort was felt in this situation, and on percussion the chest was normally resonant everywhere.

I came to the conclusion that the pin had lodged in the right bronchus, and made his parents acquainted with my views.

January 18.—Had not been inconvenienced through the night. Auscultatory signs the same.

20th.—Was sent for in consequence of a paroxysm of cough, which had subsided on my arrival. Patient complained of slight discomfort as of weight, and as though something moved to and fro at times, at the seat of the bruit, which was still audible as before, but with no other change. The cough was not of a suffocative nature. I still advised waiting, for the pin evidently did not leave the bronchus. I conjectured that its point was uppermost, and that its sticking into the side of the tube at the bifurcation checked its rising beyond.

February 6.—My patient stated that on two occasions he had spat bloody sputa, but thought the pin had gone. Same auscultatory sound present.

11th.—Was awake at 4 a.m. with a severe paroxysm of cough, and, feeling something at the back of his throat, he placed his fingers in his mouth, and succeeded in withdraw-

ing the pin with the india-rubber still on it, but nearer its point than its head. No abnormal sound was present after this, or cough.

Most surgical works direct that foreign bodies in the air-passages should be removed without delay; if needs be by tracheotomy. Nor do I discover any mention as to the treatment of a pin differing from anything else; its chances of travelling away are not noted, as when swallowed. The peculiarity in this case was its being confined to the bronchus, and inability to leave that tube till the india-rubber, it would seem, had slipped sufficiently towards its point to prevent its sticking at the turn into the trachea.

Tracheotomy, under such circumstances, would only have added to my patient's troubles; and, based on the theory I had formed, the parents, who were naturally anxious, evinced every confidence in my advice, and waiting proved in this instance the better and safer course. It therefore appears to me that the case may be worth recording.

Camborne, Cornwall.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ROYAL FREE HOSPITAL.

CASE OF POISONING BY AMMONIO-CHLORIDE OF MERCURY.

(Under the care of Dr. COCKLE.)

[Notes by JOSEPH POLLARD, M.R.C.S., L.S.A., M.A. Cantab.,
Junior Medical Officer.]

J. R., aged forty, a somewhat dissipated-looking man, pitted by small-pox, which he had when a child, came to the hospital on December 8, at 7.30 p.m., accompanied by his wife, who stated that her husband had taken by mistake the contents of a penny packet of white precipitate powder on the previous evening. She had not found out the mistake till recently, and he had been vomiting and purged since the morning. He had taken the powder at 7 p.m. on the 7th inst. The mouth and throat felt sore.

On examination the pulse was feeble, and beating 100 to the minute; skin cold and clammy. Lower lip blistered towards the corners; tongue swollen, deeply furred, and in places blistered and scored. Pharynx and fauces congested and swollen. Abdomen tympanitic, painful, the pain increased on pressure generally, but, if anything, more painful over the epigastrium.

He was admitted and placed in a warm bed with hot-water bottles to the feet, and given ammon. carb. gr. v., sp. ammon. aromat. ʒss., aqua chloroformi ad ʒj., every four hours, mucilage to drink as often as he liked, eggs and milk *ad libitum*.

At 10 p.m. his temperature was 100°, at 11 a.m. 98.4°, and at 2 a.m. on 9th 97.4°. Vomiting and purging constant through the night, though the straining had decreased and the pain was less intense. The vomit consisted of the ingested food, with here and there small grey and bloody shreds, which proved to be parts of the lining membrane of the stomach, with some glairy and blood-stained mucus. The stools were slimy and bloody; the faecal matter minutely divided, and blackish-green in colour, containing some shreds, which, on microscopical examination, proved to be villous in nature, probably from the small intestine.

On the 10th, pulse 80, temperature 98°. Pain lessened, but a general tremor of the muscles, specially manifest in the tongue, was now observable. This trembling continued till salivation was established, but was most marked on the third day after taking the poison. Towards evening the vomiting ceased and the purging was diminished. He began to take his food better, and was ordered pot. iodidi gr. v., inf. quassiae ad ʒj., three times daily. At night he complained of pain in the front of the thighs.

11th.—Has slept better, but salivation is strongly marked. Gums, tongue, and mucous membrane of mouth swollen and tender; complains also of pain in the lumbar region; urine healthy. Temperature 99° in morning, 99.2° in evening; pulse fair, steady, 80.

12th.—Passed a fair night, but has been troubled by the soreness of his lips and gums, and by the salivation, which

at times, specially towards night, is copious. Diarrhœa ceased entirely; motions normal. There are four sloughs of mucous membrane on the lower lip and two on the gums in front. Complains that his teeth feel loose. Using garg. pot. chlor. Temperature 99·2° in morning, 100° in evening.

On December 13 and subsequently the temperature varied above and below the normal very seldom. He began to take solid food, but had to leave it off owing to the soreness of the mouth. Salivation continued on this and the following days, and on the 16th he was ordered tinct. opii Mj., aqua ad ʒj., every hour, which had in twenty-four hours a most marked effect. The mouth still felt sore, though the ulcers began to heal.

On the 19th the iodide was left off, and liq. ferri substituted. Under this treatment he rapidly became convalescent, and became an out-patient on the 22nd.

When seen a week after, salivation had entirely ceased, and the ulcers on mouth and gums were healed.

The case is worth noting, as poisoning by this salt is rare. The amount taken was, as far as could be judged, forty grains, and the salivation and tremor were very marked.

CASE OF POISONING BY PHOSPHORUS PASTE.

(Under the care of Dr. COCKLE.)

{Notes by JOSEPH POLLARD, M.R.C.S., L.S.A., M.A. Cantab.,
Junior Medical Officer.}

Isabella S., aged eighteen, by occupation a laundress, was brought to the out-patient department of the hospital by her sister on January 12, who stated that several days previously her sister (either accidentally or, as there was some reason to suspect, intentionally) had taken phosphorus paste in some hot broth, and had since become very ill.

Present Condition.—Patient is a fairly nourished, well-developed girl; looks sallow and as if in pain. She states that on January 8 she partook of some broth in which was placed some phosphorus paste spread on bread. After taking the broth she became very thirsty, and experienced a burning sensation in the stomach and chest, and a peculiar taste in the mouth. The food was taken at about 8.30 p.m. At midnight she felt sick, but did not vomit until 4 p.m. on the 9th inst. The vomit was dark green. She partook of milk, tea, and beef-tea before admission to the hospital. On the morning of the 9th she complained of headache, giddiness, burning in the fauces and mouth, and at the pit of the stomach; and during that afternoon was sick. The vomit on being thrown away at night exhibited phosphorescence to her sister, who remarked on the “fireworks.” A rash came out on the face, specially at the angles of the mouth, appearing as red spots with darker centres. On the 12th it appeared as small erythematous puncta at the roots of the hair, on the forehead, and at the angles of the mouth. Symptoms were unaltered, and on the 12th she sought admission. She was then collapsed and jaundiced. Pulse 80, feeble; temperature 98·2° Fahr. Complains of severe pains in the chest and epigastrium, with general tenderness of the abdomen. Extreme thirst, anorexia, free perspiration, conjunctivæ yellow, tongue furred and of strawberry appearance. Heart and lung sounds healthy. Liver dulness increased; painful on pressure. Slight cough; throat congested, mucous membrane reddened and thickened.

Treatment.—Mucilaginous drinks and magnesia. Diet—beef-tea, eggs, and brandy. Fomentation to abdomen.

13th.—Diarrhœa; stools green and some dark streaks; condition unaltered; pulse slow, feeble, 80; temperature 97°; no retention of urine; trace of albumen. Evening: Pulse 140, feeble; temperature 99·4°. Pain increased and more general. Brought up by vomiting coffee-grounds-like matter, and bile mixed with mucus. Slight delirium.

At about 4 a.m. on the 14th sudden collapse occurred, and the patient speedily sank after vomiting some blood.

Autopsy, thirty-six hours after Death.—Body of a pale young female. Skin of face and body of dusky colour; posterior part of trunk, legs, and arms covered with confluent purpuric patches. Minute hæmorrhages in mesocolon and in peritoneum covering the posterior part of the abdomen; a few also in the mesentery and walls of small intestine, all of small size. Peritoneal cavity contains about half a pint of ale-coloured fluid. But a very small portion of left lobe of liver, about the size of a half-crown, is visible below the ribs. Liver fairly firm, has a reddish colour, speckled with yellow; on section looks remarkably fatty. Under the microscope the cells were seen to be completely fatty and broken down.

Spleen: Some minute punctiform hæmorrhages are visible. Lungs: Tissues of mediastinum, especially around the roots of the lungs, filled with small black hæmorrhages. Subpleural hæmorrhages abundant also at bases and back of lungs. Heart: Hæmorrhages are observed around the bases of the great vessels. Ventricle fairly contracted, firm; tissue pale and opaque. Stomach contained about Oij. of coffee-grounds fluid; few small hæmorrhages. No source of hæmorrhage detectable. Kidneys, when examined microscopically in salt solution, almost completely disintegrated, hardly a perfect cell present; fluid filled with free nuclei and abundant fat-drops. Brain normal.

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Medical Times and Gazette.

SATURDAY, MARCH 25, 1882.

“SPARKLING NOVELTIES.”

“IF,” said Dr. Barclay, in his farewell address to the Royal Medical and Chirurgical Society, “all the sparkling novelties which glitter in the sunshine of ephemeral notoriety are carried elsewhere, it is because we all desire that our Transactions should maintain a high standard of excellence.” No doubt the desire is there, but with regard to its accomplishment there may be doubts. The “sparkling novelties,” if our memory suffices, are, as a rule, brought out elsewhere, though, as some of us may remember, they have not been altogether unknown at the “Medico-Chirurgical.”

Had, however, Dr. Barclay been present at the last meeting of the Clinical Society, he would have had more than enough of these “sparklers,” as far as therapeutics are concerned. The Society was instituted chiefly for the encouragement and cultivation of that most difficult subject. And as far as cutting, strangling, compressing, and chiselling go, the surgeons have had their fling over and over again. We could recall a few of their novelties which have “glittered in the sunshine of ephemeral notoriety”—but we forbear. At last, however, the Society would seem to have entered on its true vocation in medicine; and the first outcome of this renewed vigour and vitality was seen in connexion with a paper on what some people call myxœdema. The author of the paper in question, which was on “a case of myxœdema improving under treatment,” laboured under

serious difficulties. The patient had got better and had got worse, and in which state she was when shown it was not easy to understand. But there could be no such difficulties as far as to the treatment. First of all she had hydrobromic acid, which did not seem to do much good; and after this she had, if we remember aright, the one-fiftieth or one-sixtieth of a drop of nitro-glycerine. A stranger to the newest "remedies" might shudder to think of the terrible effects which might ensue supposing a sudden concussion to a patient who had been well dosed with nitro-glycerine took place, but might reflect that probably that was foreseen and provided for in this case by the occasional administration of *half a grain of elaterium*. The patient suffered a good deal from the effects of this, we are told, which was after all only likely, but nevertheless she strangely seemed to prefer the elaterium to the hydrobromic acid and the nitro-glycerine, and, like that unfortunate boy, Oliver Twist, actually asked for more. Probably the elaterium, after all, was the most efficacious of the three.

The nitro-glycerine was given, it was said, for the purpose of relaxing the vessels; but, strange enough, another gentleman promptly got up who had given in his cases ergot and strychnine, likewise with beneficial results. But he wisely added that these cases were often better and worse, and that they were generally worse in cold weather. At all events, he had given substances, especially ergot, which have a directly constricting effect on the bloodvessels. But the sparkling novelties did not end here. A third gentleman had given jaborandi with highly beneficial results; whilst a fourth and a fifth had freely used anti-syphilitics. Another still recommended nitrite of amyl. But one case was mentioned where the patient had been sent by Charcot to a warm climate, milk diet, and sulphur baths. We are often inclined to ridicule French treatment, with its *tisanes*, syrups, and the like, but we strongly suspect that Charcot was in the right on this occasion, and that the simplicity of his treatment might sometimes be followed with advantage by ourselves. There is undoubtedly a tendency to this, and we should be glad to see it more widely extended. For, putting joking altogether on one side, and knowing well that every one of the gentlemen who had these patients in charge were eager to do that which was most for their benefit, we cannot help reflecting that means more certain than many of those recorded as having been tried might well have been used. We should not like to venture upon recommending any of these; they were sufficiently indicated in the course of the debate.

But there was likewise shown a kind of disposition with which we sympathise to a certain extent, whilst we doubt that we can fully accept it as the guiding-star of the medicine of the future. It would almost seem as if we were rapidly going back to the age of iatro-mathematics and iatro-chemistry—say the time of Paracelsus. We know more, but we understand, if possible, less than they did then. If we were to take in full view the discussion referred to, we should find at least three distinct modes of treatment of this most peculiar disease—one intended to contract the smaller arteries, one to relax them, and another, if we can understand it all, to relax the skin as it is commonly called. All cannot be right, yet all seemed with their concomitant circumstances to do good. This is not scientific therapeutics by any means. Take some of the other cases; in these syphilis was known to exist, and (most wisely, as we think) this was attended to, with beneficial results to other conditions. In the latter group we have the application of known and valued remedies to a condition which it is likewise known they can control, and this was done altogether apart from the peculiar symptoms which were noted, but which seemed to improve with their use.

This seems more like scientific therapeutics. It is quite true we have benefited largely by the introduction of new remedies, and likewise of "more certain remedies." The new remedies must be tried, but they need not be vaunted to the skies before their full effects and consequences are known. And the body, as every man who studies his profession and is not a mere creature of routine knows well, is not a machine guided by stopcocks and valves. Physiological mechanics are highly useful in many respects, but we are almost tempted to give a page or two of instances to show where they utterly fail to explain the most ordinary symptoms. Of such a kind was the speculation thrown out the other night at the Royal Medical and Chirurgical Society. The chief means of reducing the temperature of the body was, said the speaker, the using-up of heat in converting the surface water of the body into vapour. About this, by the way, there might be a doubt. Then he argued that in albuminuria there was required additional power to force a colloid through a membrane which a crystalloid could easily traverse. This force would originate in modified and consequently diminished heat. To all this there is a very simple answer, namely, that in the body motion is never produced pure and simple, that heat is always associated with it. But what is the good of such speculations?—does it help us one whit; are we better off in our contest with disease than before; or is it merely science falsely so-called?

THE DISCUSSION ON EMMET'S OPERATION AT THE OBSTETRICAL SOCIETY OF LONDON.

THE last meeting of the Obstetrical Society of London was mainly occupied in the discussion of a paper by Dr. W. S. Playfair, on the subject of Tracheloraphy, or Emmet's operation, *i.e.*, the repair of lacerations in the cervix uteri. We have more than once commented on the teaching on this subject which is current in America; and now that the operation is advocated in England by an authority so high as the Professor of Obstetric Medicine in King's College, we think it well to consider the position which this operation now, in the light of more extended experience, holds.

First we may remark that some of the opinions we expressed (a) when the operation began to come into notice seem to be those now generally admitted; but some points we insisted on are not yet recognised, as in time they must be. We pointed out how evidently exaggerated was the estimate which our American brethren had formed of the importance of these lacerations. We were told that the discovery of them and the operation for their repair was the greatest improvement in modern gynaecology; that half the diseases of women were due to them; that a lacerated cervix invariably caused sterility; indeed, Dr. Savage did not misrepresent American teaching (although he may, as Dr. Playfair pointed out, have been in error in attributing such views to Thomas and Emmet) when he stated that the lacerations were said to be capable of producing *every* disease, *none excluded*, to which the uterus is liable. The leaders of American gynaecology are now, we are glad to find, less carried away by their enthusiasm for novelty. In the last number of the *American Journal of Obstetrics*, in a paper by Dr. Goodell on the subject, we read (page 125)—"Of the beneficial results of the operation of tracheloraphy, I must candidly admit that I am not now so sanguine as at first. Cases have disappointed me. . . . This fact I have learned, that nervous exhaustion and spinal irritation will evoke symptoms which others as well as myself have referred to slight cervical tears, but which are in nowise dependent on these lesions."

(a) *Medical Times and Gazette*, July 20, 1878, and December 20, 1879.

The statement that lacerations of the cervix invariably cause sterility, if true, we can only account for by supposing some radical difference between American and English women; for in this country it is so common to find women who are pregnant and have extensive lacerations of the cervix, that to speak of such lacerations as causes of sterility seems simply absurd.

The present state of the question we take to be this: The cervix is probably more or less torn in every first labour. Such tears, even when numerous and extensive, commonly cause no symptoms of any kind—neither disease in the cervix, nor impairment of the general health,—nor do they interfere with fertility. But it is said that there are cases in which they keep up disease in the cervix—disease which, besides being troublesome in itself, may lead to cancer,—and that they cause reflex nervous symptoms, both the local and the general symptoms being incurable by other means. What is wanted is some kind of evidence in support of these statements. They can only be put on a scientific basis by defining what the symptoms are which laceration of the cervix produces: how we are to distinguish cases in which the symptoms depend on laceration of the cervix from cases in which they do not. It has to be shown that such symptoms exist, and that they can be removed by repairing the torn cervix.

We may, perhaps, be pardoned if we repeat here in substance what we formerly said upon the method of proof. The only way to prove the pathological importance of these lacerations, and consequently the necessity of repairing them by operation, is by reporting cases. These cases must be simple ones. It is no use taking a case in which several pathological conditions have been present, and as many modes of treatment simultaneously carried out; for then the case does not show to which morbid state the symptoms were due, or which was the treatment potent in relieving them.

The discussion at the Obstetrical Society was a somewhat barren one; for few speakers had actually practised the operation, and therefore, as one caustic orator put it, they were talking of what they knew nothing about. It was manifest, however, that there was a general opinion that the importance of cervical lacerations had been over-estimated. Dr. Playfair's paper amounted to nothing more than a statement of his opinion that there was a basis of truth in the American exaggerations: that there were cases in which repairing the cervix did good. He made no attempt to bring forward scientific evidence on any point, or to define the limits of utility of tracheloraphy. His only argument was that he had seen cases which he had failed to cure by other means, and which had been cured by tracheloraphy. But he gave no information as to what were the symptoms in these cases, or what the grounds for thinking that the benefit which followed the repair of the cervix was really its result. Other speakers narrated cases in which they had seen improvement follow the operation. Their cases, as well as Dr. Playfair's, prove nothing unless it is shown that the amelioration is not simply *post* but *propter*. Dr. Matthews Duncan, who spoke with his customary force, said that he believed just the same benefit would have followed cutting a piece out of the cervix somewhere else.

There are certain factors, social and physical, in the health of women which need to be most carefully considered before conclusions can be safely drawn as to the effect of uterine treatment. The life of woman is a life of greater proportionate activity of feeling than that of man. Subjective symptoms in her are more various and more prominent than in him, and result from slighter causes. Another thing most important to remember is, that the work of woman is in her home. If a man is the patient, and we tell him to rest, to lie up at home, and our advice is followed, we

may be pretty sure that the rest is a reality, that his work is discontinued, and mind and body relieved from strain. But the same directions given to a woman insure no such thing, unless she be removed from her home. So long as she is there, the numberless cares and troubles of her family and her house will press upon her quite as much; and even more, because she will do as she is told, she will refrain from moving about, and thus to her ordinary anxieties will be added constant apprehensions lest things should go wrong from the want of her personal supervision. Then, too, among those who have not upon them the burdens of household management, there are the influences of *ennui*, of the love of notice and of sympathy. From these causes it results that there are a great number of women who suffer from symptoms which can be cured simply by taking them from their homes and putting them in a hospital, or any other place fulfilling the same conditions; the hospital regimen acting perhaps simply by giving them the rest they need, or it may be by taking them from an unhealthy moral atmosphere.

There is yet another consideration—a most painful one to mention, but which we cannot omit. It is that there are many women who are made very miserable by slight uterine symptoms, because they fear lest such may be the early manifestations of something worse, cancer being usually the dread spectre which looms before their imaginations. Such women are cured as soon as they are told that they have no disease. If they have some local disease which is detected and treated, improvement of every symptom is sure to follow the announcement to them of local amelioration.

A disease which in itself is trivial may be accompanied by all manner of subjective symptoms resulting from the causes we have indicated; and under such circumstances the benefit really resulting from the removal of fears for the future, and from a few weeks' rest and healthy life, may be, and we believe often has been, attributed to the cure of some trumpery local change. These are the "protean symptoms" of which Dr. Duncan spoke, that now are put down to ulceration, now to displacement, now to laceration, and are said to be cured by the caustic, the pessary, or the suture, as the case may be. They are cured, no doubt; and sometimes it may be that the local treatment does aid recovery; but we are sure that there are many in whom, as Dr. Duncan said, the cure, or attempted cure, of the local disease is the worst part of the treatment.

We have no doubt that many of the cases in which the "protean symptoms," "hystero-neuroses," "reflex symptoms," have been cured after repairing the cervix, were cases of this kind, and could have been cured just as well if the cervix had been let alone; and we have not seen a report of one sufficiently detailed to show any scientific reason for thinking it otherwise. We do not say it is so in all, but until writers show that they are aware of this fallacy, and on their guard against it, they will not convince those who have any knowledge of general pathology.

We have one word more to say. We do hope that no one will be found who will torture women by throwing out hints of the probable approach of cancer because the cervix has been torn.

"THE ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH."

INVITATIONS have been issued by the Presidents of the Royal Colleges of Physicians and Surgeons (Sir William Jenner and Sir Erasmus Wilson) for a meeting to be held at the Royal College of Physicians, on Tuesday, March 28, the object being the foundation of a Society with the above cumbrous title. The object of this Society or Association is to be the bringing of the legitimate influence of the

medical profession more effectively to bear on the promotion of those exact researches in Physiology, Pathology, and Therapeutics which are essential to sound progress in the Healing Art. What all this may mean we hardly know, but there can be little doubt of the real object of the Association, which we take to be either the repeal or the modification of the Anti-vivisection Act. So much has been said, especially at the International meeting, on this subject, that little more can now be brought forward on either side; but as matters stand there is little hope of having that Act repealed. It is supported by too many valuable votes, and the foolish action of so many busybodies, that no Government, Liberal or Conservative, would venture on proposing its repeal. And any body, however powerful, attempting to attain this is only likely to bring up the *anti* everything in full force to oppose them, and even to insure a more stringent enforcement of the Act. When Sir Richard Cross was at the Home Office things went on fairly well; but with the appearance of Sir William Harcourt on the scene there came a change. All became worry and vexation, till it is now hopeless for a man to undertake any series of investigations, for he never knows whether he will be allowed to finish them.

But if this be the main object of the proposed Society, as we believe it is, it seems to us rather beating about the bush to give it any such title as that above. It is quite true that other objects are proposed, but they are subsidiary to all intents and purposes. For what, after all, does medicine without research mean? and if research means anything at all, here it means experimentation. We should be the last to decry the value of this mode of research; but experimentation, to be of any value, means trained and skilled experimenters. What we take it would do most good would be the institution of a single and separate school for the purpose of such training, with ample appliances and the best of teachers, and where every student should be a qualified man. To such an institution a licence could, under the present Act, be perfectly well granted: the school might be inspected as often as desired; no mere teaching work need be done, for all ordinary details can be better explained on the dead than on the living body. Entrance to such a school might be made to depend on superior merit, a qualifying examination, or what not, but the course anyone desires to follow, once approved of, should not be everlastingly upset by the interference of the Home Secretary. An association with such aims in view, even though the objects might not be quite Utopian, would certainly have a greater claim for general support than a vigilance committee with a high-sounding title. It is certain, at least, that direct antagonism to the "*anti*'s" will only tend to embarrass more and more those who are engaged in carrying out valuable work, and is to be deprecated accordingly.

THE WEEK.

TOPICS OF THE DAY.

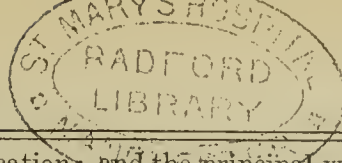
THE statement of facts relating to the insanitary condition of the Duke of Connaught's residence at Bagshot Park, which has recently been made public by Dr. W. S. Playfair, at the express desire of His Royal Highness, suggests the unpleasant reflection that frequently those entrusted with the laying down of drain and sewer pipes little understand what is required of them, since it would be too uncharitable to suppose that such grave defects as those discovered in this case were the result of either carelessness or design. We have been lately, from time to time, receiving and briefly noticing several publications on "*Healthy Homes*." This is a subject, in fact, on which every writer feels himself competent to make suggestions;

but in no case is the old saying that "a grain of practice is worth a ton of theory" more applicable. Here at Bagshot Park we find an elaborately constructed system of drains so arranged as to insure the greatest possible amount of danger to the inmates. The exposure now recorded may do good in the long run, but it will certainly cause many people to hesitate before entrusting the supervision of their houses to sanitary experts. The logical deduction seems to be, that if, in endeavouring to secure the healthiness of a Royal residence, it is impossible to find workmen sufficiently skilled to carry out minor, but most necessary, details, the chances in favour of private dwellings must be still more remote.

It is some time since anything has been heard of the Lower Thames Valley Main Sewerage scheme, and now that with the meeting of Parliament it has once more come to the front, there is nothing satisfactory to record in connexion with it. A Select Committee of the House of Commons recently met to consider the merits of a Bill to empower the Board to defray expenses incurred by them in relation to the promotion and preparation in 1879 of a measure for extending their powers, and also to authorise them to pay the cost of passing the present Bill, and another of a similar character promoted last session and thrown out by a Select Committee. Evidence was given in support of the Bill by Sir T. Nelson, City Solicitor, and Chairman of the Hampton Wick Local Board. He stated, among other things, that the Master of the Rolls had granted an injunction against the costs of the Bill of 1879 being charged on the rates, on the ground that the promoters should have proceeded by provisional order. This course, he explained, would not have enabled the Board to obtain the powers they sought. Mr. Cann, who appeared on behalf of certain ratepayers of East Moulsey, contended that in going direct to Parliament, instead of proceeding by provisional order, the Board had acted illegally, and therefore could not levy the costs from the ratepayers. The Committee, however, considered the preamble of the Bill proved.

The facts elicited at a recent inquest held by Dr. Diplock, Coroner for West Middlesex, at Dawley Wall, near Harlington, on the body of a female child, aged nine months, whose parents live in a boat on the Grand Junction Canal, forcibly illustrate the necessity which exists for a more careful supervision of the canal-boat population, as advocated by Mr. George Smith, of Coalville. On Sunday, the 5th instant, the child's mother, a woman named Matthews, took the infant to Mr. Parrott, surgeon, Hayes, and asked his advice about it. Mr. Parrott found that the child was in a terrible condition from neglect; on his remonstrating with the woman, she stated that she had not time to attend to it and do her work on the boat as well. On the following day the infant died from exhaustion, owing to want of sufficient nourishment. The jury, which was principally composed of boatmen and brickmakers, in returning a verdict of "Death from want of proper food," intimated to the Coroner that they did not wish the parents of the child to be censured.

It has not been sufficiently made public that there exists at Folkestone a Convalescent Home, the work of which, always steadily increasing, has up to the present time been carried on in two large ordinary dwelling-houses. The importance of this institution will be better understood when it is stated that no fewer than 2439 persons have already been admitted to its benefits, the larger proportion of them coming from thirty-six hospitals, metropolitan and provincial. The St. Andrew's Home, as it is called, possesses one peculiar feature which is not shared with other institutions of a similar kind—in it patients are received recovering from severe illness (not conta-



gious), or from surgical operations, and who still require most careful nursing, with medical treatment. Such cases, together with invalids of either sex, irrespective of religious opinions, and coming from whatever distance, are admitted. So numerous have applications for admission now become that the present accommodation is quite unequal to the demand made upon its resources; the Home, moreover, is inconvenient as regards its internal arrangements, and is situated too far away from the sea. The Council have therefore determined to erect a suitable building on a site obtained through the kindly consideration of Lord Radnor. A sum of £7000 has already been subscribed, but £9000 is still required to carry out the undertaking, and subscriptions are solicited, which may be paid to the Rev. C. J. Parsons, Priory, Lees, Folkestone. It is stated that the Duchess of Edinburgh has consented to lay the foundation-stone soon after Easter.

Recently, in the House of Commons, Mr. Gibson asked the Secretary of State for War whether, in accordance with the Warrant of January, 1880, "not less than half the number of vacancies in the Army Medical Department had been filled up by competition," and if he could state how many vacancies occurred in the half-year ended December 31 last; also, how many of such vacancies were filled up by competition at the last examination, and whether the terms of the Warrant and the engagements it held out to the candidates had been satisfied. In reply, Mr. Childers explained that formerly, when the Army Medical service was not so popular as it is now, and it was difficult to fill its ranks by competition, it was considered desirable that the Secretary of State should have the power to allow some of the first appointments to be filled by selection through the principal medical schools, but it was provided that at least half should enter by competition, the word "vacancies," of course, meaning the number of appointments to be filled up. As a matter of fact this power of nomination had never been exercised, and all vacancies had been filled up by competition, so that the Government had even gone beyond what the Warrant required. He further stated that there were in reality no vacancies existing at the end of last December, thirty medical officers having reverted to the Imperial establishment through reductions taking place in India, in consequence of the introduction there of the station-hospital system; and the gentlemen who were successful at the last examination would have to be appointed to vacancies as they occurred from time to time.

With a view of more publicly extending the information which has already been circulated through other channels, it may be mentioned that a representative meeting of the heads of the principal medical faculties and associations, and others, will be held at the College of Physicians on March 28 next, to form an Association for the Protection of Science, in respect especially to the attacks which have recently been made on those engaged in the prosecution of research and the advancement of medical knowledge by experiment on animals. The letters of invitation are signed by the President of the College of Physicians, Sir William Jenner; and the President of the College of Surgeons, Sir Erasmus Wilson.

A registered medical practitioner, of Hebden Bridge, near Todmorden, was recently brought before the Todmorden Petty Sessions, charged, at the instance of the Registrar-General, with "wilfully and unlawfully making out and signing certain false certificates under or for the purposes of the Births and Deaths Registration Act." The particulars of the case are similar to others which from time to time have been made public. The medical practitioner employed an assistant in his practice who was not possessed of any

qualification, and the principal was in the habit of signing death certificates for patients treated by his assistant and whom he himself had not seen. From the report of the proceedings, it is to be surmised that the attention of the Registrar-General was called to this breach of the law more from local jealousies than from any desire to protect the public. Nevertheless, as we have before pointed out, it behoves every medical man in practice to make himself thoroughly acquainted with, and to fully and accurately carry out, all the clauses of the Births and Deaths Registration Act. The plea put forward by defendant's counsel—viz., that his client did not know that he was doing wrong in giving the certificates in question—of course failed to carry any weight with the Bench, and he was condemned to pay a penalty and costs, amounting in the aggregate to £10 10s.

At a recent meeting of the Court of Common Council, amongst several items of business brought forward, Mr. Innes asked if the attention of the Commission had been drawn to a petition signed by many thousands of ship-owners and others, strongly complaining of the pollution of the river Thames by sewage. Mr. Felton, in reply, said there could be no two opinions as to the importance of the subject, although it was not in the hands of the Commission, but of the Metropolitan Board of Works, who, he understood, were taking all the means in their power to deodorise the sewage. Dr. Collingridge, the Medical Officer of Health for the Port of London, had made a representation to the Commission upon the subject, and the engineer had done all he could in the matter. The subject then dropped.

THE ABOLITION OF VIVISECTION.

ONE of the members for the city of Hereford having given notice of the introduction into Parliament of a Bill for the total abolition of vivisection, the medical profession in the city and county have petitioned the House of Commons against the Bill. After stating tersely and clearly the grounds and reasons of their conviction of the value of, and necessity for, experiments on living animals, the petition continues as follows:—"Whilst your petitioners, therefore, fully believe that experiments on living animals are essentially necessary, and desire that they should always be conducted with the least possible suffering to the poor animals themselves, they contend that the liberty to perform them should be accorded to all such persons of high scientific education and acquirements who may desire to devote themselves to this form of study; and they would humbly suggest that such qualifications and permission might be determined and granted by a tribunal appointed by eminent scientific bodies, such as 'The Royal Society,' 'The University Authorities,' or the 'Medical Colleges.' Your petitioners therefore humbly pray that the present law restricting such experiments may be altogether repealed, or if retained, that it be altered in the manner above indicated." The petition is signed by upwards of seventy medical practitioners in the county and city, including the names of many men well known beyond the confines of Herefordshire.

THE METROPOLITAN ASYLUMS BOARD MEETING.

AT the usual fortnightly meeting of the Managers of the Metropolitan Asylums Board, held on the 18th inst., the returns from the various hospitals for fever and small-pox were laid before the Board. From these it appeared that at Stockwell and Homerton (the Deptford Asylum being now closed against the reception of fever-patients) during the past fortnight 83 patients had been received, 17 had died, and 109 had been discharged—leaving 274 under treatment, or 37 fewer than at the close of the previous fortnight. Of the number under treatment, 143 were cases of scarlet fever,

33 of typhus (all in the Homerton Asylum), and 98 enteric fever patients. The small-pox returns continued to show a decrease in the number of cases. During the fortnight under notice there had been 103 admissions of fresh cases (as against 150 in the previous period), 17 had died, and 120 had been discharged—leaving 377 under treatment. A letter was read from the Local Government Board in regard to the hospital-ships *Atlas* and *Endymion*. There had been correspondence about these ships, the Thames Conservancy urging that they should be removed from their present berths near Greenwich, and calling upon the Managers to pay a substantial sum as expenses, alleged to have been incurred by a private firm of ship-builders through their proximity. The Local Government Board's reply to these communications was that no objection was seen to the ships being removed to Long Reach, and suggesting that they should now be reserved for convalescent cases only, in order to obviate the difficulty of sending acute cases a long distance by water. Sir E. H. Currie moved the reference of the subject to a joint committee of all the small-pox asylums committees. The Board, he thought, should not consent to remove the ships at present, but should await the report of the Royal Commission on infectious hospitals. This motion was carried, Dr. Fowler remarking that the Local Government Board seemed to consider the removal of acute cases of small-pox by water-carriage to be as dangerous as removal by road, while, in point of fact, twenty miles on water would be less hurtful to a patient suffering from acute small-pox than would be the jolting for one-fifth the distance over the stones of London.

GEORGE BUDD, M.D., F.R.S.

NUMBERS of our readers will regret to hear that Dr. George Budd, formerly Professor of the Principles and Practice of Medicine, King's College, London, and Physician to King's College Hospital, died on the 14th inst. at Ashleigh, near Barnstaple, where he had lived since his retirement from practice in London some years ago. Dr. George Budd was one of the famous medical family of Budds, of North Tawton, Devon; and was distinguished, as were so many of his brothers, for talents and industry. Having entered at Caius College, Cambridge, he came out Third Wrangler in 1831, the year in which the present Regius Professor of Physic in the University of Cambridge stood as Eighth Wrangler. Dr. Budd was elected a Fellow of his College, and in 1840 took his M.D. degree. Not long after settling in London he was appointed Physician to the *Dreadnought*, and some years later on to King's College Hospital. He was a most acute and industrious observer at the bedside and in the dead-house, and his books "On Diseases of the Liver" and "On Organic Diseases and Functional Disorders of the Stomach" were the best works on their subjects in the English language. We shall give shortly a fuller notice of Dr. Budd's distinguished career.

THE IRISH GRADUATES' ASSOCIATION.

THE annual dinner of this body came off with much *éclat* on St. Patrick's Day, at the Holborn Restaurant. The chair was taken by Sir William Mac Cormac, supported by Mr. Lister and Mr. Saunders, together with many other members and guests. Above all, it should not be forgotten that with their usual gallantry the Irish graduates have admitted to their Association certain ladies who have passed a medical examination in Dublin, who, on this occasion, exercised their rights of free speech, as is usually done by enfranchised women. Altogether a most pleasant evening was spent, and we shall only be repeating the wish of all present should we adopt for the time a portion of the Association's motto, *Floreat semper*.

THE PLAISTOW SMALL-POX HOSPITAL.

IT may not be considered out of place briefly to notice the working of the Small-pox Hospital at Plaistow established by the Board of Works of the Poplar District, as distinct from the Metropolitan Asylums Board Hospitals. The building was opened for the reception of patients on May 5, 1881, Mr. Walter Wickham being appointed the Medical Superintendent; from that time to the end of the year, the period over which his report extends, 120 cases were admitted—75 males and 45 females; of these 112 were discharged and 8 died. Taking the register month by month, Mr. Wickham notes a gradual increase in the severity of the cases received: In May, out of 21 admissions, 2 were confluent cases; in June, out of 20 admitted, 3 were confluent cases; in July there were 12 admissions, with 3 confluent cases; in August, 17, and 4 confluent cases; in September, 12, and 7 confluent cases; in October, 9, and 6 confluent cases; in November, 17, and 7 confluent cases; and in December, 11, and 5 confluent cases. The eight deaths recorded were all confluent cases: one was complicated with chronic heart disease, one with brain fever, one with phthisis, one with abortion, and one with pneumonia. From May to December the number of unvaccinated cases admitted was nineteen. All the severe and fatal cases occurred amongst these and those whose marks of vaccination were slight and unsatisfactory.

THE PARIS FACULTY OF MEDICINE.

AMONG the troublesome legacies bequeathed by Prof. Paul Bert on the collapse of his brief and turbulent hold of power, was one devised while *in articulo mortis* to the Faculty of Medicine. We announced some time since that Prof. Hayem had been authorised by a small majority of the Faculty to exchange his chair of Therapeutics for that of Pathological Anatomy, vacated by Prof. Charcot on his appointment to the new chair of Pathology of the Nervous System. Hitherto the recommendations of the Faculty have always been complied with by the Minister of Public Instruction; but Prof. Paul Bert, without discussing the matter with that learned body, at once declared the chair of Pathological Anatomy vacant, and submitted to *concours*. Since he has been succeeded by M. Ferry, nothing has been heard either of the *concours* or the permutation of chairs; and the Faculty meeting again in council has presented a new list of three names to the Minister, in order that he may, as usual, choose one—this being indeed nominal, as the name heading the list has always hitherto been considered as chosen. The choice made has been fatal to M. Hayem's pretensions—many of the Faculty being much opposed to the principle of permutation of chairs. There were thirty voters present, the required majority being therefore sixteen. For the first place on the list M. Cornil received sixteen, and Prof. Hayem fourteen votes; M. Lancereaux was then placed second, and M. Grancher third.

SPAYING FOR UTERINE FIBROIDS.

DR. W. WIEDOW, assistant in the Gynæcological Clinic at Freiburg, has published in the *Centralblatt für Gynäkologie* (Nr. 6, 1882) his experience of the above method of treatment. He prefaces his account with some very just remarks, pointing out the tendency that there is, when a new mode of treatment is introduced and is found beneficial, to reason with undue confidence from the first few successful cases, to regard the new measure as one of universal efficacy, and to apply it accordingly. From indiscriminate application bad results follow, and the treatment becomes discredited. Nevertheless, if all results are fully and fairly published, such indiscriminate, and therefore unsatisfactory, practice becomes

of great value in enabling us to determine with precision the cases in which the treatment is of real utility. Dr. Wiedow's cases are 21 in number, of which 3 died (a mortality of 14 per cent.), all of them from peritonitis. In 6 ill results of other kinds followed, twice intra-peritoneal abscess, slight peritonitis in two cases, in one peri-vaginal abscess, and in another thrombosis of the saphena vein. As to menstruation, this function was arrested in 11 cases. In 4 hæmorrhage recurred at monthly intervals from one to three times after the operation, and then ceased. In one, aged forty-four, the patient menstruated for nine months after the operation, and then ceased to do so. In another, hæmorrhage ceased for the three months following the operation, and then recurred, being accompanied with dilatation of the cervix and pains indicating a tendency to spontaneous extrusion of the tumour; the case was successfully ended by surgical enucleation of the growth. In the remaining case, hæmorrhage was absent for five months and then returned, together with renewed growth and lymphangiectatic degeneration of the tumour. The tumour was punctured and then incised, with a fatal termination. We have then, in short, 3 deaths and 6 cases of illness following the operation to put against 15 cures.

CASUAL PAUPERS SUFFERING FROM SMALL-POX.

THE Local Government Board have just issued a circular letter, stating that their attention has recently been drawn to certain cases in which poor persons have been admitted into, and discharged from, casual wards whilst suffering from small-pox; it has been ascertained that, in several instances, affected persons had, on the nights immediately preceding their application for admission into casual wards, slept in other casual wards; and that it would appear that disease is not unfrequently spread by the casual poor. The Board express their reliance on the readiness of the guardians to take measures to diminish the risk of infection, and refer them to the regulation in Article 11 of the General Order of November 22, 1871, under which masters of workhouses, or superintendents of casual wards, are required, in the event of any casual pauper being ill, to obtain as soon as practicable, the attendance of the medical officer, who shall give directions as to the treatment of such pauper. The Board consider it highly important that all cases of illness should receive prompt medical attention; and they request the guardians to give strict directions to the master or superintendent to at once procure the attendance of the medical officer when any casual pauper appears to be ill, or there is any doubt on the subject.

THE GENEROUS TEMPER OF THE ANTI-VIVISECTIONISTS.

MR. GEORGE FLEMING, the distinguished President of the Royal Veterinary College, has lately written, in the *Nineteenth Century*, an article in defence of "vivisection," so-called, and, what is worse still, his article is a very able and logical one. Consequently, Mr. Fleming has incurred the wrath of the "anti-vivisectionists." On the 11th inst. the annual meeting of the members and supporters of the Battersea Home for Lost Dogs, of the Committee of which Mr. Fleming is a member, was held at the offices of the Society for the Prevention of Cruelty to Animals; and, it having somehow been rumoured that the vivisection question would be raised, the attendance was very large. Among those present were the Baroness Burdett-Coutts, Sir Alexander Malet, Miss Frances Power Cobbe, Miss Lloyd, and Mr. Fleming. On a motion being proposed of re-election and thanks to the Committee, Miss Cobbe and Miss Lloyd moved as an amendment that as Mr. Fleming had published, in the *Nineteenth Century*, an

article in favour of vivisection, his name should be omitted from the Committee. Mr. Fleming ably defended the article, pointing out how animals, no less than human beings, benefit by discoveries made through pathological experiments. Professor Pritchard supported Mr. Fleming's argument; and the Baroness Burdett-Coutts even, after stating that she attended expressly because the question of vivisection was to be raised, admitted that there was evidently a great difference between pathological experiments and vivisection. In the end, the amendment was lost, and Mr. Fleming was re-elected—Miss Cobbe's party numbering only ten, it is said, in a crowded meeting; but it was not in them to take their beating gracefully, and on the 14th the following letter appeared in the *Times*:—"Sir,—Favour us by allowing us to announce to those who are interested in the Home for Lost Dogs at Battersea that we have retired from the Committee, and, of course, are no further responsible for the management of the institution.—We are, Alexander Malet, May C. Lloyd, Frances Power Cobbe." So one may not seldom see one or more ill-conditioned children withdraw sulking, finger in mouth, from their comrades when they cannot have everything their own way; but the loss is not on the side of the deserted comrades.

THE ARTISANS' DWELLINGS ACT COMMITTEE.

THE Select Committee on the Artisans' Dwelling Act have held some meetings recently; at one of which it was stated that the ground cleared by the demolition of unsafe and insalubrious dwellings of the poor had been re-let on conditions which would allow of the possibility of its being applied to any purpose after a lapse of ten years. Sir H. Hunt, Consulting Surveyor to Her Majesty's Offices of Works, and arbitrator under the Artisans' Dwellings Act of 1875, said he had acted in fifteen cases—eight in the metropolis, and seven in the provinces. He considered that the Act had worked most beneficially in the public interest by clearing away unhealthy areas. This had no doubt been done at considerable cost to the ratepayers, but great expense was inevitable in such matters. At the same time he was of opinion that the machinery of the Act was cumbersome, dilatory, and too expensive, and he ventured to suggest a simpler and more summary course of action. He drew the attention of the Committee to the operation of the Post Office Land Act of last session, which gave the Postmaster-General power to acquire any property by giving three months' notice to the occupiers—application to Parliament being avoided. He gave the Committee information as to the demand that existed for small property such as that to be found in Petticoat-lane. It frequently occurred that a considerable sum was paid by people to get tenants out of their premises—a sort of tenant-right being thus established. In the case of the property required for the new law courts a very large sum was spent in compensating tenants, of whom there were 345. He gave his experience of the Victoria Dwellings Association, and said he thought it would be better if two classes of buildings were provided, one for the artisans and another for the labourers, power being given to local authorities to construct them. He found that the poorer classes were unable to pay the rents of the artisans' dwellings; a cheaper class of lodgings was wanted.

HEALTH LECTURES FOR THE PEOPLE IN EDINBURGH.

IN some of our larger towns the increasing spread of instruction among the masses has given rise to the idea that it would be for the benefit of mankind generally to inaugurate series of health-lectures for the people. One of these series has just terminated in Edinburgh; ten lectures were delivered by eminent men, commencing in November, 1881,

and terminating last February. The subjects of the lectures were happily chosen, and comprised—"Some Lessons from Modern Medicine," by Dr. James A. Russell; "The Human Body," by Dr. D. J. Cunningham, Senior Demonstrator of Anatomy at the Edinburgh University; "Parasites in their relation to Food and Health," by Dr. Andrew Wilson, Lecturer on Natural History; "The Brain and its Functions," by Dr. J. Batty Tuke; "The Skin and its Management in Health," by Dr. W. Allan Jamieson, Lecturer on Diseases of the Skin, Edinburgh School of Medicine; "How we Digest our Food," by Dr. James Foulis; "Small-pox and Vaccination," by Dr. D. Rutherford Haldane, President of the Royal College of Physicians, Edinburgh. These lectures have been published in a cheap form by Messrs. Macniven and Wallace, of Edinburgh, some of which have been forwarded for our perusal, and we can bear testimony to the very able manner in which these gentlemen have dealt with the different subjects, so as to bring them within the comprehension of a mixed audience. There remains, in fact, only one objection—"a little knowledge is a dangerous thing": but if care be well taken to insist that lectures of this description do not make the hearers of them know everything about health, we can have nothing but unqualified approval for the object at heart and the manner in which it is carried out, as shown in the series which has so recently terminated at Edinburgh under the auspices of the Health Society in that city.

THE PARIS WEEKLY RETURN.

THE number of deaths for the tenth week of 1882, terminating March 9, was 1363 (701 males and 662 females), and among these there were from typhoid fever 38, small-pox 15, measles 39, scarlatina 5, pertussis 4, diphtheria and croup 62, erysipelas 12, and puerperal infections 6. There were also 79 deaths from tubercular and acute meningitis, 230 from phthisis, 56 from bronchitis, 120 from pneumonia, 92 from infantile athrepsia (35 of the infants having been wholly or partially suckled), and 45 violent deaths (32 males and 13 females). There are but slight differences as regards epidemic diseases between the present and preceding week, but that of small-pox (15 instead of 11) is of importance in the face of the fact that the admissions for this disease into the hospitals have been much beyond the usual mean, implying an approaching still greater mortality from this cause. The deaths from measles, too, after oscillating for several weeks between 23 and 26, have suddenly mounted up to 39. The births for the week amounted to only 1284, viz., 638 males (480 legitimate and 158 illegitimate) and 646 females (475 legitimate and 171 illegitimate): 108 infants were born dead or died within twenty-four hours, viz., 51 males (39 legitimate and 12 illegitimate) and 57 females (38 legitimate and 17 illegitimate).

BARNWOOD HOUSE HOSPITAL FOR THE INSANE.

BARNWOOD Hospital for the Insane, near Gloucester, seems to enjoy great and deserved prosperity. The profits on its working, which are applied to its structural improvement, amount to between £4000 and £5000 a year, and the results of its medical administration are equally satisfactory. The rate of recovery amongst the patients admitted to its benefits last year was 43 per cent., and the death-rate (calculated on the average number of patients daily resident) was 4.42 per cent. No suicide nor serious accident occurred during last year, and the general health of the inmates was good. Dr. Needham, the Medical Superintendent, is inclined to attribute the preservation of the health of the many aged and infirm patients in the Hospital in no small degree to the careful heating of its wards and to the equable temperature maintained in

them during the winter and spring months. The Commissioners in Lunacy speak in terms of high commendation of the attention bestowed on the sanitary arrangements of the Hospital, and note with approbation that three educated ladies are now employed as companions in its female department. There was an entire absence throughout the establishment of complaint of harshness or ill-treatment, and some patients who were getting better expressed their willingness to remain in the Hospital for a time. The average weekly cost per patient during 1881 was £1 13s. 4d., the average weekly receipt per patient being £2 9s. 3½d. Out of a total of 113 patients forty-two were maintained at reduced charges, and three altogether free of charge. We are not surprised that the applications for admission continue to be very numerous and much in excess of the available accommodation. We trust, however, that these applications will not induce the Committee to enlarge it much further, and thus render it unwieldy, and make impossible that thoughtful individual treatment which contributes so largely to the success of its present management.

DECREASE OF FEVER AT NEWCASTLE-UPON-TYNE.

IN his report on the sanitary condition of Newcastle-upon-Tyne during the year 1880, Mr. Henry E. Armstrong, the Medical Officer of Health, remarks that the success of sanitary measures against typhus fever, formerly most potent, widespread, and perennial in Newcastle, has frequently been recorded in the pages of his reports, but never has that success been more signal than during the year under notice, since that period has passed without the admission of a single case to the Fever Hospital of the Corporation. Moreover, to prevent any supposition that the paucity of typhus patients in hospital is in any way due to remissness on the part of the Health Department, Mr. Armstrong states that two cases only of the disease have been notified in the whole district during the year 1880. One of these was found on investigation not to be typhus fever; the other being merely a suspected case of that disease, was not removed. Mr. Armstrong asserts without hesitation that with like notification of cases, and compulsory isolation of the infected, the success which has followed the efforts of the Sanitary Authority against typhus would be fully equalled in the case of small-pox, scarlet fever, measles, and other communicable diseases. There has also, he adds, been an actual and large decrease in the mortality from two zymotic diseases which usually form a striking feature in the returns, viz., scarlet fever and measles; while the mortality from diseases not zymotic, but liable to fluctuation—those of the respiratory organs,—is also considerably below that of the previous year. The tables and diagrams which accompany Mr. Armstrong's report are carefully compiled and afford ready evidence of the interest which he takes in the numerous and onerous duties that are entrusted to him.

SMALL-POX IN THE FRENCH AND GERMAN ARMIES.—In the French army there are annually registered 2000 cases of variola, with 200 deaths; while in the German army, from 1873 to 1879, there only occurred ninety-six cases, with no deaths. Dr. Zuber attributes this enormous difference to vaccination, and especially to revaccinations, which are practised five or six times in all the men incorporated.—*Lyon Méd.*, March 12.

APHTHOUS VULVITIS.—In this affection, hitherto termed the vulvitis of young infants, Prof. Parrot paints, by means of a pencil of badger-hair, the vulva with a thick layer of iodoform, interposing a small quantity of charpie between the labia. This is repeated daily until the cure is complete; but from the first application of the iodoform the ulcerated surfaces cleanse, and soon after disappear.—*Union Méd.*, March 16.

FROM ABROAD.

ALCOHOL INJECTIONS IN ACUTE ABSCESS.

In a paper published in the *Gazette Médicale* for February 4 and 11, Dr. Assaky gives some illustrations of Prof. Gosselin's method of treating acute abscess, founded on the antiseptic properties of alcohol and the action which it exerts on inflamed or suppurating tissues. In place of opening an abscess largely, he makes an incision which generally does not exceed a centimetre in size, and which allows of the contents being partially evacuated. The evacuation is then completed by the aid of gentle pressure, and the cavity of the abscess is washed out with alcohol at 90°. The quantity of alcohol employed varies with the size of the abscess, but it must always be sufficient to allow of the whole internal surface being washed with it. After cleaning and wiping, the abscess is then covered with a dressing of camphorated alcohol. Next day the abscess is found to have secreted abundantly a dark plum-coloured liquid of a consistence a little thicker than that of phlegmonous pus. This secretion becomes less and less on subsequent days, and it is observed that in proportion as its quantity diminishes the density of the liquid becomes less and its colour lighter. In the end it is replaced by a serous, transparent liquid, analogous to lymph. When on pressure we are unable to obtain any more of this serous secretion, which is small in quantity, the abscess is near being cured. There is no longer any cavity, the parietes seem adherent and cemented together, and nothing remains but the small incision, which requires a day or two more for closing. The zone of peripheric induration which surrounds the fluctuating portion of the abscess begins to diminish the day after the injection, and it is the same with the oedema of the skin covering the purulent collection. The redness tends to disappear after the fourth day, and becomes localised around the incision. The skin from being red assumes a rose-colour, and frequently has a varnished aspect due to the production of a new epidermis after the fall of the old one. The abscess once cured, a slight induration of the subcutaneous tissues remains in its place, the cicatrix, however, being neither depressed nor stretched. What advantages does this method then offer? It allows of the incision into the integuments being made only of a small extent, a small incision being probably less exposed to the ordinary complications of wounds; and it leaves a cicatrix which is scarcely perceptible—an advantage which, especially in women, is not to be left out of sight. But the true superiority of the method is that it considerably abridges the duration of the abscess. It is evident that it is not possible to fix the number of days necessary for the evolution of an abscess so treated, the duration depending much upon the size; but all things being equal, it may be stated that the duration of an abscess treated by puncture and washing out with alcohol, is very much shorter than that of an abscess treated in the ordinary manner. In abscesses of small or medium size the cure may take place in from the second to the sixth day.

The treatment is applicable to any acute abscess, whatever may be its size, provided it be circumscribed and does not, by the fact of the region in which it is developed, present prolongations or sinuous extensions into which the alcohol can only penetrate with difficulty. Still, when the abscess assumes really considerable proportions, it will be best to conjoin a slight degree of methodical compression, made by means of wadding, or better by sponges, placed immediately above the protective covering. But when the abscess is voluminous, we may have to repeat the injection once or twice; and to judge of the opportune time for this we should be guided by the nature of the liquid secreted, employing the alcohol when it tends to take on the characters of pus, the object in view being the suppression of suppuration. If, after three or four injections, the abscess does not proceed rapidly towards healing, we have to do with an anfractuous cavity, having its submuscular or intraglandular prolongations, as in abscesses of the axilla or mamma, in which the method almost always fails. Nevertheless, even in these unfavourable cases, injections made at the com-

mencement would appear to accelerate the progress of the abscess and prevent the extension of secondary suppuration.

Thus, then, we have the fact well established that the great majority of abscesses treated by Prof. Gosselin's method cease suppurating and heal with great rapidity. The alcohol modifies the suppurating surfaces and induces an abortion of suppuration, so that the method might well be called *abortive*. The cicatrization of the sac of the abscess is brought about independently of the pus, so that union is not effected by second intention. Nor have we to do with primary intention. Prof. Gosselin has long observed that wounds in general, and especially those of the head, when treated by alcohol, are healed in a very short time, suppuration properly so called being replaced by a sero-sanguinolent oozing, small in quantity, and possessing no odour. He has given to this mode of cicatrization the name of *intermediate*, characterised as it is by the absence of granulations and suppuration, and also by its short duration and by the oozing which it gives rise to; and in this alcoholic treatment of abscess there also seems to be produced something intermediate between primary and secondary union. The injection of alcohol into inflamed tissues is not as a rule very painful, the pain of course varying with the susceptibility of individuals, though never becoming very considerable or lasting long. Sometimes cutaneous eschars have followed its employment, but this seems to have been due to the too long delay in resorting to it, the skin having become very red and inflamed and its vitality impaired, and that in individuals in a bad diathetic condition.

A SUPERNUMERARY BREAST.—In the *Union Méd.*, January 13, Dr. Notta relates the case of a woman, twenty-six years old, who has been under his observation for three years. In 1878 she informed him that for four months previously, whenever she suckled her infant, milk flowed from the axilla, and on examination a small soft tumour was observed there, varying in size from that of a walnut to that of a hazel-nut, according to the time that had elapsed since the infant had suckled, and that milk had flowed from the tumour. The flow of milk from that tumour, which commenced ten months after delivery, and took place drop by drop until a teaspoonful had issued, seemed to take place from the normal skin, no aperture whatever being detectable. A sort of cord could be felt joining this supplementary mamma to the true breast. Seen again two years later, when the woman was again suckling, the appearances were found to be exactly the same. A year later still, when she had weaned her child four months ago, the tumour was found greatly diminished, and the connecting cord could scarcely be perceived. In the first three pregnancies of this woman no such appearance presented itself. In only one out of fifteen women whose bodies were examined after death could M. Notta find anything like an axillary prolongation of the breast in the shape of a kind of cord. The absence of an areola or nipple in this supplementary breast is remarkable, inasmuch as in the fifteen similar cases recorded as having been met with in France, one or both these have always been present.

SCENTED IODOFORM IN DISEASES OF THE EAR.—Dr. Burnett (*Philadelphia Med. Times*, February 11) observes that iodoform is a very useful remedy in chronic inflammation of the middle and external ear, and especially in chronic purulent inflammation of the cavity of the tympanum; but the repulsiveness of its odour causes it to be rejected by patients and their friends. He has therefore attempted to deodorise it in the following powders:—1. Iod. g. xx., ol. menth. p. gtt. iv.; 2. Iod. gr. xx., ol. gaultheriæ m.j.; 3. Iod. gr. xx., ol. amygd. amar. gtt. ij.; 4. Iod. gr. xx., ol. lavand. gtt. ij.; 5. Iod. 5j., tr. dipteris odorat. fl. 5ij.; 6. Iod. gr. xv., ol. menth. p., ol. lavand., aa m.j.; 7. Iod. gr. xxx., ol. amygd. amar., ol. lavand., ol. menth. p., aa gtt. j.; 8. Iod. 5j., bals. Peruv. gr. iij.; 9. Iod. gr. xx., tannin gr. x. In the combination with tannin, the iodoform is very slowly broken up, an iodide of tannin being formed. This prevents volatilisation of iodine, and diminishes the odour, and this powder is one of the most efficient. The combination with Peruvian balsam, by its great deodorising power, allows of more iodoform being employed than in the tannin combination. These two powders are the most satisfactory of the series. In the others, owing to the rapid evaporation of the oils, the odour is only concealed just at the moment of application.

REVIEWS.

Contributions to Orthopedic Surgery: including Observations on the Treatment of Chronic Inflammation of the Hip, Knee, and Ankle Joints, by a New and Simple Method of Extension—the Physiological Method; and Lectures on Clubfoot, delivered at the College of Physicians and Surgeons, New York. By JOS. C. HUTCHISON, M.D., Visiting Surgeon to the Brooklyn (N.Y.) City Hospital; Surgeon-in-Chief to the Brooklyn Orthopedic Infirmary, etc. Illustrated. New York: G. P. Putnam's Sons, 182, Fifth-avenue. London: Trübner and Co. 1880. Pp. 121.

A PORTION of the contents of this little volume had already appeared in the *American Journal of the Medical Sciences*. The Lectures on Clubfoot were delivered before the medical class of the New York College of Physicians and Surgeons, and were subsequently published in the *New York Medical Record*.

The first forty pages are devoted to the treatment of chronic inflammation of the hip, knee, and ankle joints. First the indications for treatment are considered; then the danger from ankylosis is shown to be over-estimated; next the history of the treatment of hip-joint disease by fixation and extension is given, and the inefficiency of the instruments which have been devised for this purpose is insisted on. Then follows the description of the "physiological treatment" recommended by the author. To secure immobility of the joint and to obtain extension of the limb, no apparatus is thought requisite. The author evidently has a profound belief in the *vis medicatrix nature*; and thinks it an unmixed boon to get rid of the paraphernalia of splints, weights and pulleys, plaster, and the perineal band. Put on the sound limb of the patient an elevated shoe, and give him a pair of crutches, and let him get about in the open air, and Nature will do the rest! Nature will keep the joint fixed by the reflex contraction of the peri-articular muscles, aided by intra-capsular effusion and the voluntary effort of the patient; and this rigidity will continue until Nature says that immobility is no longer necessary. Nature, too, is equal to supplying more extension than can be borne by weights and pulleys, and quite sufficient to subdue the spasm of muscles—for the weight of the limb itself is equal to one-fifth of the whole body. This is all true, certainly, to a great degree; and proof of its correctness is afforded by the constantly observed fact that when the surgeon moves the limb in a case of hip-joint inflammation the pelvis moves with it, and not the femur on the pelvis. But most surgeons are too familiar with the results of cases in which Nature undirected has played false, and left the patient with a limb ankylosed in a false position—it may be adducted, or it may be adducted and flexed—so that the division of one or more of the adductors or the flexors has been required to bring back the parallelism of the limb. In certain cases, and in certain stages, the physiological plan of treatment may be well enough; but our own experience of Nature's efforts to cure disease in her own way has not encouraged us to leave to her tender mercies, and a high-soled boot, all cases of disease of the hip-joint, whatever the stage of the disease, except "the comparatively rare form of arthritic coxalgia, in which is suddenly developed an acute inflammation of the synovial membrane, and other soft structures of the joint, attended with great constitutional disturbance and excruciating pain." In such cases, Dr. Hutchison admits that his plan of treatment "would be inappropriate at first."

In the case of the knee-joint the author considers some mechanical restraint necessary in order to secure complete rest, and he uses splints made of hatter's felt for this purpose; extension is accomplished by the use of the elevated shoe and crutches.

In treatment of inflammation of the ankle-joint the author recommends two splints of plaster of Paris, one applied in front and the other behind, extending from the middle of the leg to the ends of the metatarsal bones, and wide enough to leave an interval of half an inch between the edges, on the inner and the outer side. The elevated shoe and crutches enable the patient to get about in the open air.

The second part of the book consists of the Lectures on Clubfoot. The first chapter contains some general remarks on

talipes; rules for the performance of subcutaneous tenotomy; the difference in the anatomy of the infant and adult foot; and on the differential diagnosis between congenital and non-congenital clubfoot. Then follow chapters on each of the varieties of talipes—their causes, morbid anatomy, and treatment. The author advocates the gradual, not the immediate, extension after operation; the rate of extension should be slower in paralytic cases and in persons of feeble health than in others, and in them should continue over at least three weeks. Dr. Hutchison has had no experience of the operations of excision of portions of the tarsus in old cases of talipes varus, but considers that "in confirmed and very aggravated cases the patient is entitled to the benefits they may confer."

The author very rightly protests "against the prevalent idea that diseases and deformities of the limbs and other parts of the body can be properly treated only by an orthopedist, or in an orthopedic hospital."

The little volume is the outcome of much careful thought and experience. It conveys a great deal of information in a very concise form, and is very intelligibly written. If we cannot agree with all therein contained, and if there is nothing new in the Lectures on Clubfoot, there is at least an independence of opinion, with a clear, short statement of the premises on which his conclusions are founded, when the author differs from other authorities.

Syphilis and Local Contagious Disorders. By BERKELEY HILL, M.B., F.R.C.S. Second Edition, entirely re-written by BERKELEY HILL and ARTHUR COOPER. London: Smith, Elder, and Co. 1881. Pp. 636.

THE authors of this work tell us that the advances in our knowledge of the diseases treated of have been so great, that they have deemed it well to re-write the whole of the text. They say, and rightly, that the knowledge of visceral syphilis has increased most during this period, for when the first edition appeared, the affections of the bloodvessels and of growing bones were hardly recognised. These statements will serve to show the nature of the present work, the extensive changes which have been made in its compilation, and the large ground which it now covers. The work is arranged in five divisions—Introductory; Syphilis; Chancre; Gonorrhœa; and Accessory Disorders. The largest of these is the division on Syphilis, which contains nineteen chapters. Herein the general subject is ably discussed; while in the other divisions the more purely local questions are considered. A very brief reference is made to the "unicist" and "dualist" theories of the syphilitic virus. The authors have done well not to weight their work with any of the theories, for and against, with which it was thought necessary to support one's opinions on this subject but a short time ago. It was in 1858 that Ricord acknowledged himself convinced by Bassereau's observations of the existence of two kinds of contagious venereal sores—one purely local, the other but a part of a general constitutional syphilis; and since that time the truth of this view has never been seriously disputed.

In the chapter in which our authors give an "outline" of the disease, the question of *re-infection* is dealt with. They admit that cases do occur, in which syphilis may be re-infected on the same individual, but they regard the cases as rare. As regards the *duration* of syphilis, that is, the period during which it is contagious and transmissible, the authors are guarded, giving authorities rather than their own views on the matter. They say, "If we combine the opinions of others with our own experience, it may be safely asserted that, as a practical rule, *two years* should be taken to be the period during which a person may expect a return of the eruption on the cutaneous or mucous surfaces." The *mortality* appears to be on the increase, according to the Registrar-General's statistics. "In a large majority of the fatal cases the subjects are infants." It is, of course, open to question whether the larger returns are really due to an increase of syphilis, or to a more accurate registration of the cause of death. For it is well known now that many infants who really died of syphilis have in times past been registered as dying of atrophy or marasmus.

The chapter on contagion deals with the subject in an exhaustive manner: thus the influence of climate, race, age, and idiosyncrasy, is well pointed out; and next the mode of con-

tagion—direct contact, mediate communication, hereditary communication—is discussed. Syphilis from vaccination is also considered. That part of the chapter which deals with the transmission of syphilis to the offspring is very full and instructive. The secondary effects of syphilis take up several chapters; they are fully discussed as affecting the various systems—the skin, the alimentary, respiratory, circulatory, muscular, osseous, genito-urinary, etc., systems. The chapter on the nervous system is by Dr. Gowers; that on syphilis of the eye and its appendages by Mr. Nettleship. The diagnosis, prognosis, and prophylaxis are also considered in this part.

Enough has been said to show what a wide range this new edition covers; it contains, besides the personal experience of the authors, elaborate bibliographical references and quotations, which add much to the value of the work. It is free from the dogmatic statements which characterise some books; perhaps it would be better in a future edition were the authors to give their own views a little more prominence than they at present possess. The work will prove a valuable addition to our literature on this subject, and a reliable guide to those who may wish to read themselves up abreast of the times.

De la Syphilis du Testicule. Par le Dr. PAUL RECLUS.
Paris: G. Masson. 1882.

THIS work commences with a history of syphilitic diseases of the testicle; after which the author gives a detailed description of the various forms of this disease. He describes an acute orchitis in the secondary stage of syphilis, diagnosed chiefly by the exclusion of any other cause, by its rapid transition to the chronic form, and by its ready subsidence under mercurial treatment. He also refers the greater number of the cases of hernia testis, generally attributed to struma, to the ulceration of gummata, and objects to the operation for covering-in the fungus introduced by Syme. He treats syphilitic sarcocele by local mercurial inunction, and internally by the administration of large doses of iodide of potassium, sometimes combined with the proto-iodide of mercury. The work is a very fair discussion of the facts, but in the main contains little that is new: the greater part will be found in a more concise form in the ordinary text-books of surgery.

The Student's Handbook of Chemistry. By H. LEICESTER GREVILLE. Edinburgh: Messrs. Livingstone. 1881.

THIS compact and handy little manual will not supersede the excellent manuals of Williamson, Roscoe, etc., but it will probably be found a useful guide by ordinary and especially medical students.

The author has endeavoured to incorporate into his work the essentials of chemical physics, and also a good deal of qualitative, and the outlines of quantitative, analysis—at least of the methods employed in estimation. He has made much use of tables showing the reactions exhibited by kindred bodies.

Manufacturing processes and the examination of potable waters are lightly touched on, and a short chapter is appended on physiological chemistry. The whole question of types is dismissed in a single page, and though there is a chapter on the graphic representation of the hypothetical constitution of organic molecules, rational formulæ are nowhere used in the chapters on inorganic chemistry. This we think to be a mistake, for though our own experience in teaching leads us to question the expediency of introducing beginners at once to formulæ, and to prefer the plan adopted by Professor Barff, as he says, from the German schools, of postponing all theories until the student has mastered the facts on which they are based, we believe that the liberal employment of rational formulæ along with the empirical gives a clearer apprehension of all that renders chemistry an exact science, in place of a vast collection of facts. This method was pursued by Naquet throughout his most philosophical "*Principes de Chimie*."

In a rapid perusal of Mr. Greville's work we have not met with many palpable errors; but we must count as such his treatment of the disulphates. The Nordhausen or fuming sulphuric acid he does not distinguish from the common oil of vitriol, although he states that it "is still prepared on a small scale." In most elementary works it is still described as a combination of hydric sulphate with

sulphuric anhydride $\text{SO}^3\text{H}^2\text{SO}^4$; though we believe that the reactions of its sodium salts with heat show it to be not a mixed body, but a true disulphate, $\text{SO}^2 \left. \begin{array}{l} \text{SO}^2 \\ \text{H}^2 \end{array} \right\} \text{O}^3$, containing two

molecules of SO^2 , and consequently an additional atom of O, precisely analogous to the dichromates (or bichromates), as $\text{CrO}^2 \left. \begin{array}{l} \text{CrO}^2 \\ \text{K}^2 \end{array} \right\} \text{O}^3$, the empirical formula of which, $\text{K}^2\text{Cr}^2\text{O}^7$, he gives,

but without any allusion to the constitution of these salts.

Indeed, he frequently lets slip an opportunity of illustrating a chemical law, as, for example, that of the difference between saturated and non-saturated atoms or molecules in the case of the action of chlorine on CH^1 and C^2H^1 respectively; on the other hand, when treating of absolute, active and latent atomicity, he goes so far as to suggest that S is a hexad in SO^3 , a group the arrangement of whose atoms is certainly capable of more probable explanation.

In the section on the examination of potable waters, the principles of Wanklyn's and Frankland's processes are given; but while the defects of the older permanganate process are given, the improvements now so generally employed are not hinted at. So, while the estimation of urea by the nitrogen set free by the action of hypobromites or hypochlorites is given, the sole allusion to Liebig's well-known process is to be found in the words, "It also unites with metallic oxides such as the mercuric." The chapter on animal chemistry might well be made more precise; the account of albumin is far too scanty, and though trypsin is mentioned as an agent in its digestion, the different conditions under which it and pepsin act are unnoticed. The idea of the book, however, is good, and the execution is, for a first edition, very satisfactory. With a little care in revision and a more liberal employment of woodcuts it might easily be made one of the most useful of elementary text-books.

MORTALITY RETURNS OF BERLIN FOR 1881.—According to the official returns (*Deutsche Med. Woch.*, February 11), the number of deaths occurring in a population of 1,140,000 was 31,050, being 27.2 per 1000—the proportion having varied between the years 1872-79 from 27.7 to 32.9 per 1000. During the first year of life there died 12,273 infants, or 39.5 of the mortality. Of these 12,273 infants 2627 were brought up at the breast, 5284 by hand, and 2362 by a mixture of the two methods. From measles there died 201, or 0.18 per 1000 of the living, against 0.34 in 1880. From scarlatina 903, being an increase on the preceding year (872); from diphtheria and croup 1778, or 1.56 per 1000 of the living, instead of 1.28 per 1000 in 1880. There were 340 deaths from typhoid fever, being the smallest number since 1861. The number of cases of small-pox was unusually large in 1881, viz., 302, and of this number 54, or 17.8 per cent, died. There were 4718 deaths from diarrhoea and cholera, 405 from pertussis, and 140 from puerperal infections.

THE DANGER OF HYPNOTIC EXPERIMENTS.—Professor Harting, of the Utrecht University, some years since made a great number of experiments in hypnotism on various animals, as fowls, rabbits, pigeons, guinea-pigs, and frogs. But if hypnotism was induced several times in the same animal, it was found that its nervous system became greatly damaged. "I had six fowls," he says, "which at intervals of two or three days were placed in a state of hypnotism; in about three weeks' time one of these fowls became lame, hemiplegia soon after appeared, and the fowl died. It was the same with the five others, so that in three months they were all dead." These experiments ought to render us very circumspect in inducing hypnotism in man; and Professor Brown-Séquard, who had repeated Harting's experiments, declares (*Comptes-Rendus*, February 20) that by the provocation in hysterical women of phenomena analogous to those which are so fatal to animals, we risk doing them mischief. As the result of the observations which he has made, he has reason to believe that persons frequently submitted to this kind of influence gradually become perfect *subjects of demonstration*, this indicating that by repetition of the exercise of the pathological functions of the nervous system the disease becomes more and more serious. Therefore it is not desirable that hypnotism or other analogous action should be often practised on hysterical subjects.—*Presse Méd. Belge*, March 5.

FOREIGN AND COLONIAL CORRESPONDENCE.

ELECTRO-THERAPEUTICS OF THE BRAIN.

SIR,—You had the kindness to spend lately a page of your valuable paper on a critical review of my “Experimental and Critical Researches on the Electro-Therapeutics of the Brain.” The interest shown thereby in my efforts to elucidate the actions of electricity on a part of our organism encourages me to try to remove some misconceptions which may be caused by remarks in the final part of the above-mentioned article. The learned writer of this article believes that there is an important discrepancy in the results of my experiments on animals, of which I am apparently not aware. “How is it,” he says, “that if the inverse current caused dilatation, and the direct one constriction, of bloodvessels, when flowing longitudinally through the brain, the opposite should have taken place when the current flowed transversely through the organ—viz., dilatation at the anode, and constriction at the cathode? It is impossible to reconcile these two statements, and we are therefore compelled to say that one or the other series of observations must be incorrect.” This argument seems to be a very strong one; and, indeed, it would be impossible to refute it if the observed changes in the calibre of the bloodvessels of the brain would depend from a direct action of the current on the vessels. *But such is not the case*; and this circumstance has been overlooked by your reviewer as well as by Remak, of Berlin, who raised the same objections in an article published in the *Archiv für Psychiatrie*.

I believe I have proved, or at least have shown it to be most probable, that the changes in the lumen of the bloodvessels during the passage of the current through the head are caused by an action of the current on the vaso-motor centres in the medulla oblongata and cervicalis. Now, in using the inverse current on the head, we apply in experiments on animals as well as in electro-therapeutics the positive pole on the nape of the neck, *i.e.*, we put the vaso-motor centres under the influence of the + pole, and we have in consequence thereof dilatation of the vessels. In using the direct current, we apply the negative pole on the aforementioned place, *i.e.*, we put the vaso-motor centres under the influence of the - pole, and the consequence is constriction of the vessels. If, on the other hand, we send a current transversely through the head, applying the electrodes on both processus mastoidei, the vaso-motor centres are not under the influence of *only one pole*. These centres, bilaterally arranged in the medulla oblongata and cervicalis, are now on one side under the influence of the positive, on the other side of the negative pole. The action of the + pole causes here again dilatation, the action of the - pole constriction, of the vessels, *but of course alone on the corresponding side*. As we are aware, there is no discrepancy at all in the results of my experiments on animals: on the contrary, these are in such harmony as can be desired. The conclusions drawn from the seeming discrepancy of my statements are therefore unfounded. I may state furthermore, on this occasion, that the facts in question have been confirmed meanwhile by further researches, which will be published in a short time.

Munich, April 12.

I am, &c.,
Dr. L. LÖWENFELD.

THE CHARLES MURCHISON SCHOLARSHIP IN CLINICAL MEDICINE.—The first examination for this Scholarship, which has been instituted as a memorial of the late Dr. Charles Murchison, will be held at the Royal College of Physicians, on Friday, April 21, at four o'clock. The Scholarship will be competed for alternately in London and Edinburgh, and is intended to attract such candidates as have already distinguished themselves in clinical medicine in their respective schools. It is hoped that the title of Murchison Scholar will indicate very exceptional merit in the possessor of it. All particulars relating to the examination are given in the advertisement which will be found in this number, and it may be noted that candidates are required to have studied either in London or Edinburgh, and only in such schools as are recognised by the Royal College of Physicians of London, or by the University of Edinburgh.

GENERAL CORRESPONDENCE.

LIGATURE OF THE VERTEBRALS AND CAROTIDS IN EPILEPSY.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Alexander's reference, in the *Med. Times and Gaz.* of March 11, to a paper in “Ranking's Abstract,” vol. xxxvi., page 58, is inaccurate. Had he referred to me he could have seen at Section 1319-1, that Dr. Billings, in vol. xxxiv., page 60, refers to eleven cases, from 1825 to 1859, in which the carotids were tied; of these four were cured, four improved, two not changed, and one died. Several cases of compression of the carotids are also noticed in the same section of
Your humble Servant, the

March 13.

“MEDICAL DIGEST.”

P.S.—A reference to Mr. Holmes's paper on Aneurism of the Vertebral Artery (Section 1407-4), which is to be found in the *Lancet*, vol. ii., 1473, page 105, will show that the sac has been opened, and the artery tied; so that Dr. Alexander is not the first to perform the operation of ligaturing the vertebral.

IS THE YEW POISONOUS?

LETTER FROM DR. H. J. ALFORD.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am able to answer this query in the affirmative, as regards birds. Rather more than a year ago two fine pheasants were sent me, with a request that I would ascertain the cause of death, as a large number of these birds had been found dead in a nobleman's preserves, and poison was suspected. I found death to have been caused by the leaves of the yew-tree. The crops of both birds were distended with these leaves, broken up into small pieces, and in the gizzard was found the same in a partial state of digestion. The mucous membrane of the whole of the alimentary canal was inflamed and softened. No other poison of any kind was found. What could have been the object of their eating the yew-leaves I am unable to say, as they had plenty of Indian corn to feed on. I have been told of many authentic cases of cattle being killed by these leaves, but I did not previously know of their effects upon birds.

I am, &c., HENRY J. ALFORD, M.D., F.C.S.,
Public Analyst for County of Somerset.

Taunton, March 21.

LETTER FROM MR. K. W. MILLICAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—I recollect that when I was at school my schoolfellows and myself used to collect the red fleshy berries of the yew (*Taxus baccata*) and eat them in great quantities. We regarded them as a delicacy, and so far as my recollection is to be trusted, they certainly were very good eating. We were always careful not to eat the stones, believing them poisonous. No case of indisposition ever occurred among us in consequence of eating them.

I am, &c.,
KENNETH W. MILLICAN.

Kineton, Warwick, March 16.

LADIES' WAISTS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Touching a medical question I seek the opinion of some competent correspondent of your valued journal. The interest in the subject of ladies' waists has been recently rekindled by the delivery of a lecture by a gentleman in the profession in a town-hall in a fashionable part of the West-end of London. Now, in the *Journal of Science* for the current month, a writer, defending the practice of tight-lacing, argues that, consequent upon the reduction of oxygenation, the result of habitual lesser exercise among ladies, the diminution of the work of the digestive function affords a warrant for the attempt to appear “genteel.” The writer himself is not very clear in his language, but the above is the best interpretation I can give of his defence. Having always been bitter against those who, despite nature,

advocate or practise these deformities, and, on the other hand, those who continually pretend to reverence nature and point to Venus in the Louvre, but cry "Fie, for shame!" if nature is looked upon and adored, I have written, in hopes of finding an authoritative refutation of the above argument.

You may possibly conjecture, and rightly so, that I have elected to trouble you with the matter on account of the defence of æstheticism which appeared in a recent number of your journal. Perhaps you will allow me to remind you and the esteemed readers of the *Medical Times and Gazette* that as yet there is no "orthodoxy" in æstheticism. Mr. Ruskin has favourably commented on an article fiercely attacking what were supposed to be the views of the "school"; Mr. Oscar Wilde has hinted that æstheticism *minus* vice is "musicless and thin" (and the world holds that one verse leaveneth the whole lump); Vernon Lee has already many dissentients; while an exposition and a plea by the present correspondent received rejection, followed by a correspondence of vehement nature, from the hands of a lady-editor of a magazine fraudulently styling and advertising itself "Æsthetic."

But I am trespassing, as I wrote on a medical matter; yet I must point out that, considering the divergence of opinion in this matter, it is scarcely wise to offer criticisms and employ epithets until a better understanding of the doctrines of the "school" can be framed.

Chelsea Gardens, March.

I am, &c.,

O.

OBITUARY.

SURGEON-GENERAL STANHOPE H. FASSON, M.D.

THE numerous friends of this highly esteemed and able medical officer will have been much grieved by the announcement of his sudden death at Aldershot on the morning of Saturday, the 11th inst., while sitting at the breakfast-table. Dr. Fasson had for some months suffered from cardiac dyspnoea and cough, and had from time to time consulted a physician in London on account of these symptoms. A few weeks before his death the faintness during one of his attacks was so great and persistent as to excite considerable alarm. It may, therefore, be hoped that to the members of his family such warnings of the possibility of a suddenly fatal termination may have even to a slight degree prepared them for the sad and appalling result. However that may be, Dr. Fasson steadily adhered to the performance of his onerous duties as Principal Medical Officer at Aldershot to the very last with professional zeal and soldierly pluck, and only two days before his death he had been up in town at the headquarters office of the Army Medical Department on business connected with his official work, in apparently good health and spirits. He had by a few days only completed his fifty-eighth year, having been born on March 6, 1824. In 1845 he became a Member of the Royal College of Surgeons, England; and in 1846 he graduated in medicine at the University of Glasgow. He entered the Army Medical Department as temporary Assistant-Surgeon on April 24, 1846, and received his permanent appointment on July 1 of the same year. He was promoted to the rank of Surgeon on March 23, 1855, and to that of Surgeon-Major on April 24, 1866. He became Deputy Surgeon-General on September 30, 1875, and while in this rank served for a short period in Bombay, but having been invalided to England, was on half-pay from November 8, 1876, till June 12, 1877. On return to full-pay he served as Principal Medical Officer in the West Indies. He received his promotion to the rank of Surgeon-General on January 9, 1881, and about the same time was posted to Aldershot as Principal Medical Officer.

Few men of his position in Her Majesty's service had a larger circle of friends. His own duties he performed with conscientious care and remarkable efficiency; and in his relations with other officers, particularly those of junior rank in his own department, as also with those of the military departments, he inspired feelings of sincere respect, and will long be remembered with affectionate regret by those who best knew the many endearing qualities of his disposition.

He served in the Kaffir Wars, 1847 and 1851-52; engagement with the Basuto tribes at the Berea, December 20, 1852; Crimean campaign, 1854-55—affairs of Bulganak and

McKenzie's Farm, battles of Alma, Balaklava, and Inkerman, capture of Balaklava, siege and fall of Sebastopol. He had the medal with four clasps, was Knight of the Legion of Honour, and had also the Turkish medal.

FREDERICK JOHN BUTLER, M.D., F.R.C.S., ETC.

WE regret to announce the death of Dr. Butler, of Winchester, where he was highly esteemed amongst a large circle of society. Deceased was the younger son of the Rev. T. Butler, formerly Fellow of Magdalen College, Oxford, vicar of East Wrotham with West Tisted, and vicar of Empshot, in Hampshire. Frederick John Butler was born on March 21, 1819, and was educated at Midhurst School, Sussex. He served his apprenticeship with the late Mr. W. J. Wickham, surgeon, of Winchester, and subsequently entered as a medical student at Guy's Hospital. He became M.R.C.S. in 1840, L.S.A. in 1841, F.R.C.S. Eng. (exam.) in 1849, and M.D. St. Andrews in 1862. He was Surgeon to Her Majesty's Prison and the County Constabulary; Surgeon to Winchester College and St. Cross Hospital; to the Royal Hants County Hospital; and Surgeon-Major of the Third Hampshire (Militia) Regiment. In 1855 Dr. Butler married Katherine, daughter of the Rev. Maximilian Geneste, late vicar of Holy Trinity, West Cowes, who pre-deceased him some twenty years. In the early part of his career he was the partner of Mr. W. J. Wickham and that partnership continued until 1851. Subsequently he entered into partnership with the late Dr. F. W. Richards, and after his death with the present Dr. W. A. Richards. Deceased was taken ill on Tuesday, the 7th inst., and his illness developed itself into acute pneumonia, of which he died on Thursday, the 16th inst. The following regimental order was issued by Lieut.-Colonel and the Hon. Colonel George Briggs, commanding 3rd Batt. the Hampshire Regiment:—"It is the melancholy duty of the commanding officer to announce to the officers, non-commissioned officers, and men of the 3rd Batt. Hampshire Regiment the death of Surgeon-Major F. J. Butler, which occurred on the 16th inst. Dr. Butler has had medical charge of the regiment since 1861, during which time his kind and skilful services have been ever readily given to all ranks during the periods of training, whilst the permanent staff must especially deplore his loss. The funeral is fixed for half-past two o'clock on Tuesday, and will be attended by the adjutant and permanent staff, who will appear in full dress. As a further mark of respect to Dr. Butler and sincere sorrow for his loss, crape will be worn on the left arm by the whole of his brother officers during the ensuing training."

CREMATION OF DISSECTED BODIES.—The Paris Municipal Council, on the report of Dr. Bourneville, has again urged the recommendation that the remains of the bodies employed at the Ecole Pratique and the anatomical theatre at Clamart should be submitted to cremation. During the three years 1878-80 there were 10,144 bodies employed in these two establishments for anatomical purposes.—*Gaz. Méd.*, March 11.

LARGE FIBRINOUS CAST OF THE BRONCHI.—Dr. Holland exhibited a remarkable specimen of this to the Louisville Medico-Chirurgical Society (*Louisville Med. News*, February 18), which with others had been discharged by coughing by a man sixty-six years of age. There was no marked dyspnoea till near the close of his life, when asphyxia became apparent. The specimen, preserved in alcohol, is an irregular mass of knotted and twisted tree-like branches, about twenty in number, of an opaque whitish colour, with occasional blotches of a richer pink. It measures in its largest transverse diameter about one-eighth of an inch, irregularly cylindrical in form, growing smaller at each of the bifurcations. The entire cast, when straightened out, measures about two and a half inches in length, having many short bifurcations. It is solid throughout, fibrinous, and insoluble in water or solution of common salt. Microscopically it resembles croupous exudation, laminated and fibrillated, containing in the mesh of fibrillar material white exudation corpuscles and fusiform cells, with and without nuclei, the whole presenting a granular aspect. This case is one of the acute variety of the disease, which both Lebert and Riegel declare to be excessively rare.

REPORTS OF SOCIETIES.

THE OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 1.

Dr. MATTHEWS DUNCAN, President, in the Chair.

UTERINE FIBROIDS REMOVED BY LAPAROTOMY.

Dr. BANTOCK exhibited five specimens of uterine fibroids removed by abdominal section within the last seven months. They weighed respectively 12 lbs., 6 lbs., $4\frac{1}{2}$ lbs., $3\frac{3}{4}$ lbs., and 1 lb. Some were of long standing, others of recent growth. In only one case was menorrhagia a prominent symptom, and in that it was enough to produce great anæmia. In all the pedicle was kept outside, secured at the lower angle of the wound by Kœberlé's serre-nœud, and supported by two stout pins transfixing the stump just beyond the wire loop. Eight cases treated in this way recovered well, while four others in which the pedicle was treated intra-abdominally all died. Dr. Bantock also exhibited fragments of a very soft fibroid removed per vaginam by enucleation.

EXTRA-UTERINE FŒTATION REMOVED BY LAPAROTOMY.

Mr. KNOWSLEY THORNTON showed an extra-uterine fœtation removed by abdominal section on February 28. The patient ceased to menstruate in June, 1881; a membrane was expelled from the uterus in January, 1882. When seen after this the diagnosis was very obscure, the physical signs resembling those of a uterine fibroid. The operation was a very difficult one, the tumour being closely adherent to omentum and uterus. It consisted of a small upper portion containing the fœtus (apparently a tubal fœtation), and a larger solid portion closely connected with the uterus and largely composed of blood-clot. The uterine attachment was treated like an ovarian pedicle. The patient on the third day after operation promised well for recovery.

FIBROID RESEMBLING PLACENTA.

Dr. HERMAN showed fragments of a fibroid which, while undergoing spontaneous expulsion, had been mistaken for placenta.

HISTOLOGICAL RESULTS OF LACERATION OF THE CERVIX.

Dr. GALABIN showed microscopic sections of the flaps removed in two cases of Emmet's operation. In both cases the surface looking towards the vagina was shown to be really the everted cervical mucous membrane. One case was recent—the cervical villi were hypertrophied, but there was no marked inflammatory change, and the cylindrical epithelium was almost intact. The other case was old—the cylindrical epithelium was almost entirely lost, but there were patches of ill-formed squamous epithelium between the gland orifices. The surface was densely infiltrated with inflammatory cells, and the glands beneath dilated and proliferating.

TRACHELO-RAPHÉ, OR EMMET'S OPERATION.

Dr. W. S. PLAYFAIR read a paper on the above subject. After a short account of the history of the operation, its frequent performance in America, and the high opinion entertained of it by certain American and continental practitioners, the author referred to its comparative neglect in this country. He then described the cases for which it was suited, and referred to their diagnosis. Subsequently he referred briefly to the mode of performing the operation, and to his own experience of it. Finally, he ended his paper as follows:—"My own conclusions may be briefly summed up in the statement that, although there are a large number of cervical lacerations which produce no effect whatever, and, having healed, call for no treatment, there are a considerable number which give rise to much irritation of the uterus, which lead to important secondary results; and that these cases can often be rapidly and permanently cured by the operation, for the introduction of which we owe Dr. Emmet a debt of gratitude, and with which his name will always be associated."

Dr. SAVAGE said Dr. Playfair proceeded on principles directly opposed to those of Emmet, who insisted that the operation should not be performed when there was any sign of disease in the cervix. The American school professed to believe that every disease (none excluded) incidental to the

uterus may be, and generally is, the direct consequence of a cervical laceration. The English school disbelieves this on good grounds. The diseases alluded to in Dr. Playfair's paper could be seen in their entirety through an ordinary Fergusson's speculum. To apply to them Emmet's operation, which was admittedly not seldom followed by pelvic mischief, would be an act of extreme folly. Entropion, not ectropion, according to Emmet, is the common result of the lacerations.

Dr. HERMAN had performed this operation in eight cases. All professed themselves benefited at the time they left the hospital. The subsequent history of two of them he did not know. Three were complicated with other conditions. Of the others, one was relieved of her symptoms, although the operation was a failure so far as obtaining union was concerned; in one the symptoms returned in three or four months; in the other he believed the operation had checked leucorrhœa. The American literature on the subject consisted mostly of general statements. Few writers had published cases; and the cases were mostly complicated ones. He thought benefit had sometimes been attributed to this operation which was really due to the cure of other concomitant morbid conditions.

Dr. PRIESTLEY was prepared to believe that Emmet's operation would aid materially in curing some troublesome cases. His experience of it was limited to two or three cases; but he could recall others which had resisted all usual modes of treatment, and might probably have been cured by this operation. Ectropion with granular inflammation was not nearly so difficult to cure as endocervicitis in the nullipara. He did not think these lacerations were attended with distressing symptoms so often as was represented. The operation was only required in exceptional cases. It was painful, difficult, and sometimes dangerous. He hoped, therefore, that it would not be performed with undue frequency.

Dr. WYNN WILLIAMS did not agree with the paper either as to the simplicity or risk of the operation. Cases ending in death, metritis, and perimetritis had been recorded. He did not think there were many cases in which it was required. Although on the look-out for them, he had only met with one. Eversion was not always due to laceration.

Dr. BANTOCK thought that there was a field for the operation, but that the effects of laceration and the necessity for operation had been exaggerated. He had met with one case of laceration in which he thought the operation would be required, but the patient completely recovered without it.

Dr. MURRAY called attention to a published fatal case. Operating when there was a suspicion of malignant disease appeared to him a curious idea. The duck-bill speculum magnified any little tear that might exist. Diagnosis was more fairly made by Fergusson's speculum.

Dr. HEYWOOD SMITH agreed with Dr. Playfair as to the importance of the operation, but maintained that areolar hyperplasia often existed without fissure, and could be cured by potassa fusa, or the cautery at a white heat. A raw granulating surface, difficult to heal, was analogous to malignant papillary dermatitis of the areola and nipple, and often a precursor of cancer; in such it was important to operate. He asked if any Fellows had operated immediately after labour. It seemed to him that there were considerable difficulties attendant on such a proceeding. He had performed Emmet's operation in many cases with great success, both as to repair of the cervix and relief to symptoms.

Dr. FANCOURT BARNES thought the operation was only necessary in cases of bilateral laceration of the cervix with ectropion and enlargement of Nabothian glands. In unilateral laceration thickening of the cervix could be more readily dispersed by ignipuncture.

Dr. CARTER had operated six times with benefit, four of the cases remaining well three or four months subsequently. Slight laceration of the cervix was very common; not so cases requiring operation. He had been struck with the frequency with which displacement of ovaries complicated laceration of the cervix. This was so in two of his cases.

Mr. KNOWSLEY THORNTON called attention to the probability that fissure of the cervix with eversion predisposed to carcinoma, and that Emmet's operation prevented it. If so, a most important field for the operation existed. The specimens just exhibited by Dr. Galabin were of great importance as aids towards settling this point.

The PRESIDENT could not concur in thinking tracheloraphy one of the greatest advances in modern gynaecology. It might be an advance, but, admitting all that was said for it, it was a very small affair compared with the triumphs of laparotomy shown that evening by Dr. Bantock and Mr. Thornton. A split condition of the cervix was said to be attended with protean symptoms and disorders. Not long ago, ulcerations and then displacements, held the same position. He did not believe this, regarding all three as minor disorders, whose attempted cure was often the worst part of them. The protean disorders were accompaniments, not consequences. Nevertheless, the cure of such lesions might be a valuable service to the patient. An ectropion which could only be shown by a special speculum and special manipulations was an artificial ectropion. He did not regard the profession as having hitherto mistaken ectropion for so-called ulceration. Such cases, with or without ectropion, were generally easily cured; in cases with hypertrophy a good old plan was the caustic potass. He believed that if a new laceration were made by cutting out a bit of the cervix, cure would follow just as well as after tracheloraphy. The reference to the frequency with which the cervix was formerly divided as a means of cure was not a *jeu d'esprit*, but a weighty argument. He regarded tracheloraphy as at present *sub judice*, but was not impressed in its favour. He had not done it; but had seen the most exaggerated lacerations of the cervix interfere in no degree with health, comfort, or fertility.

Dr. PLAYFAIR had studied carefully the writings of Thomas and Emmet, and thought that Dr. Savage must have evolved out of his inner consciousness the views which he attributed to them. It was impossible not to see that Dr. Duncan was prejudiced against the operation. His remarks showed that he was not familiar with the use of the duck-bill speculum and tenaculum in these cases. The tenaculum was used not to produce ectropion, but to draw the lips together. He thought that when Dr. Duncan had fairly and impartially studied the subject he would alter his opinion. This operation was, of course, not to be compared to those which Dr. Duncan had referred to; but if it were the fact that there were hundreds of women leading lives of constant suffering, who might be cured by this operation, then it deserved to be called a great improvement in gynaecology.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 10.

JOSEPH LISTER, D.C.L., F.R.S., F.R.C.S., President,
in the Chair.

CHIMNEY-SWEEP'S CANCER.

MR. GEORGE LAWSON brought before the Society a chimney-sweep, over sixty years of age, upon whom he had operated for chimney-sweep's cancer in the axilla. The patient had had the disease removed twice, but it recurred after each operation. He was admitted into the Middlesex Hospital last November. His condition then was:—In the right axilla there was a wound about two inches long, with hard ragged edges, and from this there was a sanious foetid discharge. Through this wound a probe could be passed in all directions beneath the pectoral muscle, where there was evidently a large epithelial ulcer. The patient was anxious for an operation, but as it was clear that, owing to the rigid state of the pectoral over the ulcer, the mere excision of the growth would not prove satisfactory, Mr. Lawson obtained the sanction of the patient to amputate the arm at the shoulder-joint if in the course of the operation he thought it advisable. On November 24, the patient having been placed under ether, a knife was passed into the wound in the axilla, and the pectoralis major divided. A large epitheliomatous ulcer was then exposed. This was dissected away, but as the disease had encroached on the artery close to the axilla, Mr. Lawson felt that if he stopped here the operation would be useless. He therefore tied the axillary artery just below the edge of the lesser pectoral muscle, where the artery and tissues were healthy; and as the wound was very large, he amputated the arm at the shoulder-joint, and brought the flap which he had made of skin and muscles on to the chest. In some remarks at the close of the paper Mr. Lawson

said that the reasons which induced him to amputate the arm at the shoulder-joint were, first, to obtain sufficient skin to cover the wound caused by the excision of the epithelioma and the division of the pectoral muscle; and, next, to prevent the formation of a free collateral supply of blood to the region from which the epithelioma had been removed.

The PRESIDENT asked if there were any peculiar features in the case.

Mr. CROFT asked whether the growth had involved the axillary vessels or nerves.

Mr. LAWSON, in reply, stated that the coats of the axillary artery were involved, and therefore the vessel was cut.

ANEURISM OF THE LEFT AXILLARY—LIGATURE OF THE SUBCLAVIAN—RUPTURE OF THE SAC—AMPUTATION AT THE SHOULDER-JOINT—RECOVERY.

Mr. HOWARD MARSH related this case. The patient was a carman, aged thirty-two. He had never had syphilis or any serious illness. Eight weeks before admission he found a small pulsating swelling in the armpit. This rapidly increased, and when he came to the hospital measured nineteen inches over its most prominent part. There was great oedema of the whole limb. No pulse could be felt at the wrist. After the patient had been at rest for three days in bed, the subclavian was tied, under the carbolic spray, with a silk ligature, the ends of which were cut short. The case progressed favourably for three or four days, but then the swelling gradually increased in size, and on the seventeenth day hæmorrhage occurred from the sac. This having recurred on the eighteenth day, the swelling was laid open, with the object of tying whichever proved to be the bleeding end of the artery. As, however, a gush of arterial blood immediately occurred, and as the patient was still in a very exhausted state, it was thought best to amputate at once at the shoulder-joint. He made a favourable recovery. The author remarked that the cause of the aneurism was probably a small rupture of the coats of the axillary artery resulting from a strain. The case was a good illustration of the usual features of aneurism in the axilla, in respect to its rapid increase, the large size the swelling may attain, and the tendency of the sac to rupture. Ligature of the subclavian—the method of treatment most often successful—seemed to offer the best prospect of cure. It failed through the free establishment of the collateral circulation. Had the patient been in a less exhausted condition the limb might perhaps have been saved by Syme's operation, even when the sac had given way; but weak as he was, amputation seemed the safer expedient. The silk ligature, after it was thrown off, travelled toward the surface, and could at one time be felt close beneath the skin, and a small shred was discharged through the wound. How it was afterwards disposed of was not known. It never, however, was observed to escape externally. The silk ligature, the author thought, was unsafe, as it was apt to act as a foreign body, and so to provoke a dangerous process of ulceration in the neighbourhood of the artery. He should, on any similar occasion, employ the kangaroo-tendon ligature, which, so far as present experience has shown, is perhaps the most reliable form now in use.

Mr. GOLDING-BIRD suggested that silk should always be soaked in wax, and never in oil. It was curious that in this case a portion of the silk had been undestroyed.

Mr. MARSH thought the ligature had cut through the vessel and been found as of old, but only a shred remained.

Mr. C. HEATH was loth to criticise a case which he had not seen, but it seemed that there had been a doubt as to whether the aneurism had given way. When the vessel was evidently ruptured in such cases it was surely the recognised practice to open the sac and tie both ends of the artery. This was what was done in Mr. Syme's well-known case; still, the correctness of the practice had been contested by surgeons of eminence. It was best, however, to obtain complete control over the subclavian in the first instance before opening a ruptured axillary aneurism.

Mr. BARWELL thought that in all probability the aneurism had given way. He should like to have known something about the temperature. The danger of tying vessels in their continuity was now greatly lessened by the use of animal ligatures.

Mr. MORGAN asked what was the condition of the limb itself when removed.

The PRESIDENT considered that the aneurism had in this case given way, but even then he did not think that ligature of the main artery was hopeless. He had himself in two cases of diffuse popliteal aneurism cut down in Scarpa's triangle, even through clots, and tied the femoral. This procedure was far more likely to be successful than groping about among clots for the ends of the ruptured vessel. The case recorded afforded another example of carbolised silk making its way through the vessel and out at the wound. It was this that originally made him think of catgut. For his own part he would not use oil or wax, but only carbolised water, for silk; still, he preferred animal ligatures. He had again recently turned his attention to this subject, and he had found catgut prepared with water alone worse than that prepared by sulphurous acid. After use it showed more superficial infiltration. But he had found the best to be that prepared in chromic acid and sulphurous acid. This might be dried, and was ready for use at any time by simply putting it in carbolised water.

Mr. MARSH, in reply, said that when the case occurred this was the best ligature he could get. No doubt ligature of the subclavian had cured axillary aneurism; and then the man, when seen, was sinking. Should he come across another case, he would tie the vessel first.

MYXCEDEMA IMPROVING UNDER TREATMENT.

Dr. MAHOMED showed a case occurring in a married woman, aged thirty. Her family history was good. She had been married twelve years, and had had seven children, the youngest being now eight months old. The symptoms of her disease commenced towards the end of her first pregnancy. She had the usual symptoms of the disease, and her appearance was very characteristic. When first seen there was great swelling of the lower eyelids, which hung like bags containing fluid; her face was generally swollen, lips bluish, cheeks pink; hands were hard, swollen, brawny, and stiff—so that her movements were awkward, and her sensation impaired. There was no pitting on pressure of the affected parts; the lower extremities were not affected. Speech was slow and laborious, as usual in this disease. Her chief complaint was pain at the top of the head, worse towards evening and at night. The urine was not albuminous; the impulse of the heart was not perceptible; pulse small, artery apparently contracted, so that at first no satisfactory tracing could be obtained. During the first fortnight no change in her symptoms was perceptible; after that she was treated by one-fiftieth of a drop of nitro-glycerine, and from this time she rapidly improved. The headache immediately disappeared. In a fortnight the appearance of extreme swelling below the eyes had very greatly diminished; her hands were supple, much softer, her gloves being too large for her; she talked quicker. The treatment had been assisted during the last week by severe purging. A trace of albumen was found in her urine on two occasions. Her pulse tracing when her arteries had been dilated by nitro-glycerine showed an increase of pressure and prolongation of systole. The improvement in her condition has been frequently remarked upon by her friends and all who have seen her at the hospital. She has now been under treatment about two months, and the skin of her hands is quite loose, and almost natural. Her face, though much improved, is still characteristic of the disease. A photograph taken on February 20 was exhibited. Dr. Mahomed treated her with nitro-glycerine with the intention of relaxing her arteries, thus reducing to some extent the arterial pressure, and increasing the rapidity of her capillary circulation. Severe purgatives, which, she said, afforded her great relief, were administered with the same object.

Dr. CAVAFY said that these cases often improved under the most various treatment. In one of his cases the patient, when seen, was unable to take off her wedding-ring, but afterwards this could easily be done. His second case also improved, especially as regards the hands. A third case, in a gentleman he had seen, had also improved; and in one on whom Charcot had lectured, the Professor regretted that the patient was so much better that he could not show the marks he desired. In one of Charcot's cases, residence in a warm climate, and a modified milk diet, together with sulphur-baths, seemed to do most good. In his own cases he had given one ergot, the other strychnine, and the third was treated by iodide of potassium. But all such cases varied; especially they were worse in cold weather.

Dr. F. TAYLER referred to the case he had already shown. The patient was much better. He had used jaborandi.

Dr. HADDEN thought the great thing was to quicken the bodily movements, and to improve the general circulation. Nitrite of amyl would probably be found useful. In Charcot's case the chief agent was heat.

Mr. W. HAWARD referred to a case where the patient had got into a kind of cretinoid condition. There was a history of syphilis, for which he was treated, and after a time he was induced to go out and take regular exercise. He speedily began to improve, and now the only thing notable in him was some slowness of speech.

After some remarks from the President,

Dr. MAHOMED, in reply, said he had used the nitro-glycerine to diminish tension. It was not common to find degenerations come and go, though congestions might.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 14.

JOHN MARSHALL, F.R.C.S., President, in the Chair.

THE PRESIDENT, on taking the chair for the first time after his election, said he had first of all to disburden himself of an obligation which it was not very easy to bear. He had been elected President of that Society, though many more worthy, and who were his seniors, might have taken on themselves the duties which the post implied. These duties were peculiar. The Society was composed of busy men, and their aims were at once practical and scientific. The Society was an old one, and had special memories; it should be their object to maintain and extend these. All the Fellows were equally privileged: all had equal rights, and all equal duties. Thus at once democratic and conservative, he would call upon all to co-operate in extending the usefulness of the Society. It was still vigorous and full of vitality, and composed, as it was, of men both busy and scientific, it behoved them to be both prompt and accurate. Under his presidency he hoped that the good work already done would be continued.

The minutes of the annual meeting were then read and approved, and the President read an address proposed to be adopted and forwarded to the Home Secretary on the occasion of the recent attempt against Her Majesty's life. The address ran as follows:—

"To the Queen's Most Excellent Majesty, our Royal Patron.

"Madam,—We, the President and Council, on behalf of the Fellows of the Royal Medical and Chirurgical Society of London, ask permission to declare our sorrow and indignation at the recent alarming outrage committed against your Most Gracious Majesty; and we desire to express our heartfelt thankfulness at your Majesty's providential escape from great peril, and our loyal and fervent wishes for your Majesty's continued safety and welfare.

"Signed on behalf of the Society,

"JOHN MARSHALL, President."

Mention was then made of the contribution to the Harvey Memorial Fund. Fifty guineas were still wanted, and the Council had resolved that a subscription-list be placed in the rooms, which it was hoped there would be no difficulty in filling up. This of course would only come from the Fellows, and not from the Society.

THE INFLUENCE OF ALBUMINURIA ON THE TEMPERATURE OF PHTHISIS PULMONALIS.

Dr. C. THEODORE WILLIAMS read a paper on the influence of albuminuria on the temperature of phthisis pulmonalis. The author drew attention to the frequency of albuminuria as a complication of phthisis—to the insidious character of its approach, and to the grave prognosis it imparts to otherwise hopeful cases. Its influence on the clinical history of phthisis, and especially on the temperature course, was then considered, and sixteen illustrative cases were given. The patients were twelve males and four females, of ages varying from sixteen to forty-six. In all excavation of the lungs had taken place, and extension of disease, either in the form of excavation or of tuberculation, was actively proceeding. In some there was in addition ulceration of the larynx or in-

testines—eleven out of the sixteen had diarrhoea more or less profuse. Albuminuria was present in all, and was generally accompanied by anasarca, or by ascites, or by both. The temperature observations were made in the mouth five times a day, for periods varying from five days to six weeks. The effect of the renal disease was to mask the usual phthisical symptoms, and especially to lower the temperature. This was demonstrated by (1) temperature charts in a case of acute phthisis before and after the supervention of albuminuria, and (2) by comparing the sixteen cases with the temperatures of forty-three similar third-stage active cases free from the complication, showing that while the course under ordinary circumstances would be highly pyrexial, in the albuminuric patients it is sub-febrile, and the post-meridian rise from 2 p.m. to 8 p.m., although present, is carried on at one degree lower in the scale. The maxima and minima show the ordinary extremes of ordinary third-stage cases: 13 of the patients died, and from 12 autopsies it appeared that the tubercular changes were proceeding up to death uninfluenced by the uræmia. The kidneys were found to be distinctly lardaceous in 7 cases, large white and mottled in 3, granular or affected with interstitial nephritis in 2. Lardaceous disease affected other organs besides the kidneys in five out of seven cases. These results were confirmed by post-mortem records of the Brompton Hospital, which show the existence of lardaceous disease of the kidneys in 52 per cent. of deaths from phthisis. Microscopic examination demonstrated the lardaceous change to generally begin in the vessels of the Malpighian tufts, and later on to involve the epithelium of the tubuli contorti. This evidence is contrasted with the statistics of Bamberger, Lecorché, and Southey, which give lower percentages of lardaceous disease in phthisis. The urine of the patients was, as a rule, scanty, the quantity falling in one case to seven ounces, and in another to two ounces and a half. The specific gravity in the lardaceous cases was high, in one instance reaching 1047. The daily excretion of urea varied from 337 grains to 54 grains—in the last instance it was accompanied by diarrhoea, and gave rise to no symptoms of coma. The rate of urea excreted daily, compared with the patient's weight (estimated by Parkes at three grains and a half per pound in a healthy man), in these cases fell to two grains and under—in one case reaching 98, a very small percentage. The albumen was very abundant, even sufficient on boiling to cause the urine to become solid. The reason of the lowering of the temperature was then discussed, and the author concluded that it was not due to decrease or disorganisation of the red corpuscles, or to diminution of the albumen in the blood; but, judging from the experiments of Hammond, Stolnikow, Bernard, and Barreswill, that it arose probably from the toxic effects on the nervous system caused by the retention within the blood of the constituents of the urine, though not of the urea alone. That coma did not oftener occur was probably due to the excretory influence of the diarrhoea generally present. The prognosis of phthisis and albuminuria was very unfavourable—most hospital cases only surviving a few months after the appearance of albumen in the urine. In private practice, patients have been known to last for several years; but in the majority, albuminuria must be reckoned as of fatal import, and the ordinary duration of chronic phthisis, as extended by modern treatment, is much curtailed by this complication.

Dr. MARCET said that albuminuria was common enough in phthisis, but that the subject had not been well investigated. The main point, as it seemed to him, was the diminution of temperature when the two were associated. The diminution of urea was less valuable than at first sight it seemed, inasmuch as it depended on a great number of factors—the kind of food used, and the like. Moreover, it was diminished by the diarrhoea, and it was a question whether the lowering of temperature depended on this or on the albuminuria. At all events, Parkes' standard of the urea was for a healthy man, not for a consumptive. He offered this suggestion, that as the most natural means of reducing temperature was perspiration, when heat became transformed or stored up in giving rise to vapour, so in albuminuria the excessively difficult task of causing albumen to pass through an animal membrane might account for the general diminution of bodily heat.

Dr. ANDREWS thought that the terms phthisis and albuminuria were so vague that little good could come of their

joining them together. The albuminuria might arise from lardaceous disease or be merely intercurrent. Was there any common relation between the different kinds of kidney-disease and the different kinds of phthisis? He had seen some cases where the phthisis seemed to follow the albuminuria.

Dr. JAMES POLLOCK did not think that phthisis and albuminuria were very commonly associated. They were fairly often, but not very frequently; and even sixteen well-observed cases were a great contribution to the literature of the subject. At all events, they set one thinking as to what was the cause of the high temperature in phthisis, and how it was reduced. The first, he thought, would proceed from the great waste of tissue, the other from the overloading of the blood with such detritus. It was hardly fair to call albuminuria the cause of the fall. Phthisis, he thought, was often for a time suspended by the albuminuria.

Dr. GREEN thought there might often be some albumen in the urine without any marked kidney disease in phthisis, but if it was plentiful then there was commonly lardaceous change. In early lardaceous disease the urine was commonly increased, and it was so in these cases now recorded. The diarrhoea would lower the temperature, but all would tend to render the prognosis more grave.

Dr. REGINALD THOMPSON remarked that the body-weight often altered before death.

After some observations from Dr. B. O'CONNOR, Dr. WILLIAMS replied, and the meeting adjourned.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, MARCH 6.

Mr. S. LEE RYMER, President, in the Chair.

Mr. ALFRED COLEMAN related a case illustrating the danger of the not uncommon practice amongst dental practitioners of giving an anæsthetic and operating single-handed. Nitrous oxide was administered to a little girl for the purpose of removing two molar teeth. Just as he had extracted one of them the gag slipped, and whilst he was engaged in opening the child's mouth and attempting to grasp the second tooth, the gentleman who was giving the anæsthetic called out that the patient was not breathing. Artificial respiration was at once resorted to, and she soon came round; but at the critical moment he was himself too much occupied to notice the sudden stoppage of respiration, and he felt that, had he been operating without assistance, he should almost certainly have lost his patient.

Mr. HENRY MOON related a case of epilepsy cured by the removal of dental irritation. The patient, a girl aged twenty-one, was brought as an out-patient to Dr. Fagge at Guy's Hospital, and he, finding that her teeth were in a very bad state, sent her to Mr. Moon. She had suffered from fits since she was fourteen, and lately they had become so frequent as to reduce her almost to a condition of imbecility. On examining her mouth, Mr. Moon found a third molar in process of eruption; this he lanced freely. Some of the other teeth were extracted and others stopped at the Dental Hospital; treatment by bromide of potassium was ordered at the same time. The result was that the fits entirely ceased from the day of her first visit to the hospital. The girl soon regained her intellect, and, although she was kept under observation for several months, no recurrence took place.

THE USE OF GUTTA-PERCHA FOR TAKING IMPRESSIONS IN REGULATION CASES.

Mr. WALTER COFFIN then read the paper of the evening, on the use of gutta-percha for taking impressions in regulation cases. Gutta-percha possessed many advantages over plaster for this purpose, not the least of which was that it was much less disagreeable to the patient, but, partly owing to the use of inferior samples, and partly to improper methods of working, it had been generally abandoned as unreliable. The directions given in text-books and sent out by the dépôts would inevitably ruin the best gutta-percha so far as its fitness for impressions was concerned. The proper method was as follows:—A cup or tray was chosen to fit the dental arch; then gutta-percha, in tolerably thin

sheets, was placed in boiling water, when it immediately softened. It was then taken out on a glass rod, just dipped into cold water, and fitted into the cup. The filled cup was then placed in the hot water for half a minute, just dipped into the cold, then placed in the mouth, and the patient was told slowly and steadily to close the jaws upon it. It should be kept in the mouth for a minute and a half or two minutes, then carefully released from the bite, and at once placed in a basin of cold water, where it should be left until it was convenient to take a cast of it. Mr. Coffin then described the tests for good gutta-percha, and mentioned some other purposes connected with dental surgery for which it would be found useful.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 16:—

Gravely, Frank, Newick, Lewes, Sussex.
Stewart, Rothsay Charles, Clifton-gardens, Maida Vale.

The following gentleman also on the same day passed the Primary Professional Examination:—

Smith, Henry Strode, Royal Infirmary, Bristol.

APPOINTMENTS.

ALLAN, F. J., M.B.—Visiting Physician to the Infirmary for Consumption, Margaret-street, W.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Staff Surgeon Matthew Coates has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet, with seniority of March 9, 1882.

BIRTHS.

FRASER.—On March 15, at Earndell, Leamington, Warwickshire, the wife of Deputy Surgeon-General Henry Martyn Fraser, M.D., of a son.

HYDE.—On March 19, at York Town, the wife of Surgeon-Major Hyde, A.M.D., of a daughter.

RYAN.—On March 18, at Cape Town, South Africa, the wife of Surgeon-Major George Ryan, Army Medical Department, of a daughter.

MARRIAGES.

ANGUS—ANGUS.—On March 15, at Bewick-street Chapel, James Ackworth Angus, M.R.C.S., of North Ashfield, to Alice Mary, third daughter of George Angus, Esq., of Beech Grove, Newcastle-on-Tyne.

BARCROFT—HARVEY.—On March 20, at Bayswater, Penrose J. Barcroft, Surgeon R.N., Royal Marine Infirmary, Chatham, to Hélène, widow of the late Hingston Harvey, Esq., of Constantinople.

DAVIDSON—KELLIE.—On March 16, at Hove, Brighton, Major-General Robert Davidson, late Bengal Staff Corps, to Alice Walpole, daughter of James Kellie, Esq., Deputy-Inspector General of Hospitals, Madras.

HELMES—LEES.—On March 15, at Hill Top, James Milner Helme, M.D., of The Firs, Rusholme, Manchester, to Lydia, younger daughter of the late John Lees, Esq., of Beacon View, Hill Top, West Bromwich.

LAMB—BRIDDON.—On March 8, at Brooklands, Cheshire, William Lamb, M.D., of Lewisham, Kent, to Mabel, third daughter of Henry Musgrave Briddon, Esq., of Sale, Cheshire.

DEATHS.

ANDERSON, WILLIAM, Fleet-Surgeon Royal Navy, at the Royal Marine Depot, Walmer, on March 15.

BUDD, GEORGE, M.D., F.R.S., at Ashleigh, Barnstaple, on March 14, aged 74.

DALTON, WILLIAM RUFFELL, R.N., Deputy Inspector-General of Hospitals and Fleets, at 5, Cliff Villas, Dovercourt, on March 13, in his 70th year.

HOOD, FRANCIS E. C., Surgeon Army Medical Department, at the Fort, Agra, Bengal, on February 15, aged 28.

STEVENS, MARY JANE, wife of Robert Ingram Stevens, M.R.C.S., at Hoddesdon, Herts, on March 15, aged 48.

WHITE, ARCHIBALD, M.D., Surgeon-Major late H.M. Indian Service, Bengal, at Melville-street, Edinburgh, on March 15.

WILLIAMS, JOSEPH, M.D., late of 8, Tavistock-square, at Holmhurst, Cambridge Park, Twickenham, on March 20, aged 67.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY.—Resident Surgeon. Candidates must be on the Medical Register as qualified to practise medicine and surgery; they will not be permitted to practise privately in either branch of their profession. Applications, with copies of testimonials, to be sent to the President, Cheltenham General Hospital, not later than April 17.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Vacancy in the Surgical Staff. Candidates' names, with qualifications and testimonials, to be sent to the Secretary on or before March 29.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—Physician. Candidates must be graduates in medicine of one of the Universities recognised by the Medical Council of the United Kingdom, or Fellows or Members of the Royal College of Physicians of London; or Fellows or Licentiates of the King and Queen's College of Physicians in Ireland; or Fellows of the Royal College of Physicians, Edinburgh; but no candidate shall be eligible who practises, or is connected in partnership with anyone who practises, surgery, pharmacy, or midwifery. Applicants' names, with diplomas and testimonials, to be sent to the Secretary on or before March 29.

KENT AND CANTERBURY HOSPITAL.—Resident House-Surgeon. Candidates must be registered under the Medical Acts as legally qualified to practise medicine and surgery, unmarried, and not more than forty years of age. The election will take place on April 6, at half-past one o'clock, when personal attendance of candidates is requested. Further particulars may be obtained on application to the Secretary at the Hospital. Testimonials of qualification will be received by the Board of Management up to March 31, by twelve o'clock at noon.

NOTTINGHAM DISPENSARY.—Resident Surgeon. Candidates must be unmarried, and be on the Medical Register as having obtained two qualifications—one to practise medicine, the other surgery, in the United Kingdom; and the candidate elected shall pledge himself to remain in office for a term of three years. The election will take place on April 3. Applications and testimonials to be sent to the Secretary, at the Dispensary, on or before March 25.

PIETERMARITZBURG LUNATIC ASYLUM, NATAL.—Surgeon. (For particulars see Advertisement.)

QUEEN'S HOSPITAL, BIRMINGHAM.—Resident Surgeon. Applications and testimonials, with certificates of registration, to be sent, under cover, to the Secretary at the Hospital, from whom all further information may be obtained, on or before April 10.

SEAMEN'S HOSPITAL (late Dreadnought), GREENWICH.—Resident House-Physician. Candidates must be registered under the Medical Act as licensed to practise medicine and surgery. The successful candidate will be elected for one year, and at the expiration of this period will be eligible for re-election. Applications, together with copies of recent testimonials as to profession qualifications and moral character, to be sent to the Secretary, on or before April 6.

UNIVERSITY OF GLASGOW.—Examiner in Surgery. (For particulars see Advertisement.)

YORK COUNTY HOSPITAL.—Honorary Physician. (For particulars see Advertisement.)

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Carlisle Union.—The office of Medical Officer of the Wetheral District is vacant: area 18,671; population 18,903; salary £90 per annum.

Gravesend and Milton Union.—The office of Medical Officer for the Workhouse is vacant: salary £40 per annum.

Mere Union.—Mr. James Chilcot has resigned the First District and the Workhouse: area 19,033; population 4548; salary £105 per annum. Salary for the Workhouse £10 per annum.

Salford Union.—Mr. Henry Knowles has resigned the Fourth District: area not known; population 30,000; salary £100 per annum.

Thame Union.—The office of Medical Officer for the Workhouse is vacant by the death of Mr. Richard Lee: salary £45 per annum.

APPOINTMENTS.

Berwick-on-Tweed Union.—Jas. Mackay, L.R.C.S. Edin., L.R.C.P. Edin., to the Berwick-on-Tweed District.

Bury Union.—Benjamin Crawshaw, L.F.P. & S. Glasg., L.S.A. to the Second Tottington District.

Cardiff Union.—John L. Treharne, M.R.C.S. Eng., L.S.A., to the Roath District; Richard Lougher, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Spotlands District.

Chester Union.—Thos. S. Parry, M.R.C.S., L.S.A., to the North-Eastern District.

St. Olave's Union.—Wm. Steer, M.R.C.S. Eng., L.S.A., as Assistant Medical Officer and Dispenser of Medicines at the Infirmary.

Wakefield Union.—Duncan Macarthur, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Thorpe and Lofthouse-with-Carlton Districts.

FACULTY OF MEDICINE, OXFORD.—Examinations for the degree of Bachelor of Medicine, both first and second, will be holden in Trinity Term, on days to be hereafter notified. Candidates for either of these examinations are requested to send their names, on or before May 1, to the Regius Professor of Medicine, Medical Department, Museum, Oxford.

UNIVERSITY OF CAMBRIDGE.—Professor Humphry proposes to take classes for instruction in surgery two or three times a week during the Long Vacation. They will be open to all students entered at the hospital, and are intended more especially for those who, having passed the second examination for M.B., desire to pursue their medical studies in Cambridge during the vacation.

SANITARY APPOINTMENTS.—At the meeting of the Court of Common Council held on Thursday, the 16th, for the transaction of public business, it was resolved, at the instance of the Sanitary Committee, to reappoint Dr. William Collingridge, Medical Officer of the Port of London; Dr. Whitcombe, Medical Officer of the Hospital-ship *Rhin*, lying off Gravesend; and Mr. W. H. Lewis and Captain Gillies, Sanitary Inspectors.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 18, 1882.

BIRTHS.

Births of Boys, 1344; Girls, 1230; Total, 2574.

Corrected weekly average in the 10 years 1872-81, 2917.4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	866	825	1691
Weekly average of the ten years 1872-81, } corrected to increased population ...	900.3	854.7	1755.0
Deaths of people aged 80 and upwards ...	...	...	57

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West	669633	...	7	4	1	28	...	1	...	4
North	905947	1	4	6	2	20	1	7	2	1
Central	282238	...	1	1	3	7	...	1	...	2
East	692738	2	5	5	3	46	...	5	1	3
South	1265927	5	19	10	4	56	1	7	1	3
Total	3816483	8	36	26	13	157	2	21	4	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	30.323 in.
Mean temperature ... ..	...	...	...	...	...	47.6°
Highest point of thermometer ... ..	...	...	...	...	...	65.0°
Lowest point of thermometer ... ..	...	...	...	...	...	31.4°
Mean dew-point temperature ... ..	...	...	...	...	...	40.6°
General direction of wind ... ..	...	...	...	...	...	S.W.
Whole amount of rain in the week ... ..	...	...	...	...	...	0.01 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 18, in the following large Towns:—

[Cities and Boroughs.]	Estimated Population to middle of the year 1882.	Births Registered during the week ending Mar. 18.	Deaths Registered during the week ending Mar. 18.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London	3893272	2574	1691	22.7	65.0	31.4	47.6	8.67	0.01	0.03
Brighton	109595	68	57	27.1	56.0	35.6	44.8	7.12	0.00	0.00
Portsmouth	129916	107	33	13.3	...	...	...	...	...	...
Norwich	83821	73	40	23.5	...	...	...	...	...	...
Plymouth	74449	48	32	24.4	58.0	33.4	44.7	7.06	0.05	0.13
Bristol	210134	169	93	23.1	58.0	31.2	44.5	6.95	0.11	0.28
Wolverhampton	76756	56	34	23.1	58.6	30.5	42.1	5.62	0.00	0.00
Birmingham	408532	277	152	19.4	...	...	...	...	...	...
Leicester	126275	94	42	17.4	66.0	31.8	45.4	7.44	0.00	0.00
Nottingham	193573	147	125	33.7	61.1	28.5	42.9	6.06	0.02	0.05
Derby	83587	51	32	20.0	...	...	...	...	...	...
Birkenhead	86542	63	31	18.7	...	...	...	...	...	...
Liverpool	560377	399	279	26.0	56.7	37.7	46.9	8.28	0.00	0.00
Bolton	106767	80	62	20.3	58.4	31.6	44.2	6.78	0.00	0.00
Manchester	340211	281	200	30.7	...	...	...	...	...	...
Salford	184004	128	61	17.3	...	...	...	...	...	...
Oldham	115572	83	53	23.9	...	...	...	...	...	...
Blackburn	106460	92	58	28.4	...	...	...	...	...	...
Preston	97656	83	52	27.8	...	...	...	...	...	...
Huddersfield	83418	50	33	20.6	...	...	...	...	...	...
Halifax	74713	38	19	13.3	...	...	...	...	...	...
Bradford	188101	108	75	20.8	58.0	39.0	45.4	7.44	0.00	0.00
Leeds	315998	229	129	21.3	58.0	35.0	45.8	7.67	0.00	0.00
Sheffield	290516	200	104	18.7	65.0	32.7	46.1	7.84	0.00	0.00
Hull	158814	102	57	18.7	62.0	30.0	43.1	6.17	0.00	0.00
Sunderland	119065	114	52	22.8	74.0	37.0	52.2	11.22	0.00	0.00
Newcastle	147626	120	61	21.6	...	...	...	...	...	...
Cardiff	86724	74	42	25.3	...	...	...	...	...	...
For 28 towns	8457514	5887	3699	22.8	74.0	28.5	45.4	7.44	0.01	0.03
Edinburgh	232440	147	82	18.4	59.1	38.6	48.3	9.06	0.12	0.30
Glasgow	514048	411	245	24.9	56.0	39.5	46.9	8.28	0.00	0.00
Dublin	348293	191	208	31.2	59.6	34.8	47.0	8.33	0.00	0.00

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30.32 in. The highest reading was 30.47 in. on Thursday morning, and the lowest 30.03 in. at the end of the week.

NOTES, QUERIES, AND REPLIES:

He that questioneth much shall learn much.—Bacon.

THE SONS OF M.D.'S.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—With a large family and small practice, I find myself unable to meet the fees necessary to be paid before my son (sixteen) could enter the profession, without sacrifice of capital, which I could ill afford. Under these circumstances I am greatly puzzled to know what occupation or business a lad could follow to best advantage where capital cannot be forthcoming. There must be other members of the profession similarly circumstanced. There has lately been much written in favour of mechanical occupations, as being superior in every way to that of clerks. But I presume this does not apply to sons of gentlemen, who would scarcely be induced to follow any occupation obliging them to carry a basket or bag of tools over the shoulder. Is interest required to get boys in banks or Lloyd's insurance offices, etc.? Any hints from readers of the *Medical Times and Gazette* on the subject would be very thankfully received. I am, &c., M.D.

A Teacher, Manchester.—There will be two primary examinations for the diploma of membership of the College of Surgeons, viz., on the 31st inst. and 21st proximo; for the first-named it is stated that there are 265 candidates.

The Treasury and the Glasgow University.—Touching the maintenance of the University buildings, the Lords of the Treasury, in considering the request of the Court of the University to place the maintenance of the buildings under the charge of the Board of Works, refuse to admit that the University is placed on a worse footing than the other universities of Scotland in respect of its buildings. It is pointed out that while £80,000 has been granted to Edinburgh for new buildings, £120,000 has been given to Glasgow for the same purpose; the request has therefore been refused. The Secretary to the Glasgow University Court in answer contends that their Lordships' comparison between Edinburgh and Glasgow must arise from insufficient information rendered to them; that the £80,000 is being spent on the Edinburgh Medical School alone, but that the cost of the entire general buildings of Edinburgh University must far exceed the £120,000 granted to Glasgow. Further, that the amount annually voted by Parliament to Glasgow University is much less than that to Edinburgh and Aberdeen, and the amount realised by Glasgow from matriculation and graduation fees is also less than that received by the latter. But their Lordships have expressed their adherence to their decision.

Football Fatalities.—At Tiverton, a young man died lately from an injury received at football in October last year. Having secured the ball from a scrimmage, and while running towards the goal, he was collared by one of his opponents, and both went to the ground, the deceased falling with his head underneath his body. Several players fell on him, and when they got up it was found the deceased could not use his limbs. He lingered in the infirmary since October last, expiring on the 4th inst. The verdict of the coroner's inquest was "Accidental death."

Evading the Licence Duty.—A grocer at Deepfields, Bilston, has been fined £20 and costs for selling beer without a licence. A complete brewing apparatus was found on his premises.

Practical Advice.—Mr. Basil Cane, Local Government Board Inspector, has held an inquiry at Blackburn into an application of the Darwen Corporation for the Blackburn Board of Guardians to pay the cost incurred by the Corporation in maintaining and nursing pauper small-pox patients from Blackburn in the Hospital at Darwen. The Guardians objected on the ground that the patients were not paupers, having been made destitute only by the occurrence of small-pox in their families. The Darwin Corporation, on the other hand, contended that, though some of the patients had not actually been in receipt of relief, they would have required relieving if the Corporation, for sanitary reasons, did not instantly take charge of them. The Inspector remarked that legally a pauper was a person who had actually been in receipt of relief, but advised a practical agreement between the two bodies, and a joint-committee was accordingly appointed.

Wilson M.—A Select Committee of the House of Commons has passed the preamble of the Bill which has been promoted by the Lower Thames Valley Main Sewerage Board.

Medical Literature, Japan.—The return of works licensed to be printed during the past two years by the Japanese Department of the Interior shows that last year there were 267 works on medicine against 229 the previous year. Many of these books are translations or adaptations of European or American works.

The Lack of Public Support to Hospitals.—Mr. Gilliatt, the Deputy Governor of the Bank of England, in moving the adoption of the report at the annual meeting of the Hospital for Diseases of the Chest in the City-road, held last week, had to urge the necessity of renewed efforts to meet "the regular annual deficit." Moreover, towards the fund of £10,000 required for the new buildings rendered necessary by the increasing demands of the afflicted upon the resources of the institution, only £1000 has yet been raised.

Strutton P.—The Village Hospital at Cranley, in Surrey, has been in existence since 1859.

Munificence.—The total amount left to charitable institutions by the late Dr. Thomas Hunter, Deputy Inspector-General of Hospitals, amounts to £22,183, and besides £13,500 left to the Royal Infirmary, Edinburgh, the following charities have been benefited as follows:—The Dundee Infirmary, £3700; the Longmore Hospital for Incurables, Edinburgh, £2280; the Royal Edinburgh Maternity and Simpson Memorial Hospital, £2100; the Original Ragged Schools, Edinburgh, £500; and Cowan's Close Institution for Providing Dinners for the Poor, £103.

Fog and its Cost.—The *Citizen* states that on a recent foggy day the Gas Light and Coke Company supplied 75,000,000 cubic feet of gas, for which the charge would be £12,000.

Builders and Ground-Landlords.—The vigilant supervision of the Tottenham District Surveyor over new buildings has been exemplified by the many convictions (at the Edmonton Petty Sessions) of builders for infringements of the by-law of the Tottenham Local Board. A builder, of Truro-road, Wood Green, has been fined 20s. and costs for not having "the whole ground-surface or site of such building properly asphalted, or covered with a layer of good cement, rammed solid, at least six inches thick," as required by the by-law of the Local Board. For the defence it was urged that the requirements of the Local Board were unreasonable, as the houses were built on the solid ground. The ground-landlord stated that he was satisfied with the manner the houses were erected, or he would not have advanced money on them.

W. Metcalfe W.—For the years mentioned the daily supply of water in London, from the water companies, was respectively—in 1850, 44,383,332 gallons; in 1856, upwards of 81,000,000 gallons; and in 1865 it was estimated approximately at 108,000,000 gallons.

Compulsory Registration of Infectious Diseases.—The Milton Urban Sanitary authority have received, in reply to their application to the Local Government Board to make by-laws for the compulsory registration of infectious diseases similar to those in operation at Bolton, in Lancashire, a letter to the effect that these powers were conferred under the special provisions of the Bolton Improvement Act, and that the power to require notification of infectious disease could only, at present, be granted to sanitary authorities by private legislation.

Mars.—The reports of the principal medical officers of districts on the recruits enlisted, embodied in the official report of the Inspector-General of Recruiting of 1881, were most satisfactory, though it appears that the percentage of men who failed to pass the medical examination was higher than usual. This is, however, attributed to the severer tests of physical fitness imposed.

The Present Female Attire.—A lecturer on female attire said recently, that dressed as women usually are, the less exercise they take the better for health. In fact, they are seldom fit to stand erect or walk a block, but should be rolled around on a safe or carried on a palanquin. Not one woman in ten thousand has room inside her clothes for the rise and fall of the ribs in breathing; there is not one in ten thousand whose vital organs are not displaced by external pressure: and while this is so, the less exercise the better.

Foreign Opinion of the Sanitary Condition of London.—A contemporary writes, in reference to the recent gloomy report of the "Sanitary Protection Association," that Londoners may take comfort in reflecting that in the eyes of every other civilised nation they figure as models of all that is sanitariously excellent. It is not long since the French newspapers were indulging themselves in envious comparisons between the sanitation of London and Paris; and now a Spanish newspaper has been holding up the sanitary perfection of London to the envious gaze of Madrid. There were in January last 2225 deaths in the city of Madrid, as compared with 1232 births. At this rate, as the *Dia* remarks, unless there is an influx of colonisation from without, Madrid will soon be as empty as it was in the days of the Goths. The figures represent a death-rate nearly four times as high as that of London. An appalling fact, if true!

Statistician.—From the official "Statistical Tables relating to Emigration from and Immigration into the United Kingdom" there appears to have been a falling-off of the Irish emigration last year, as compared with the previous twelve months; but the report on these tables from the Board of Trade states that this variation, important as it is, does not alter the fact that the general character of the emigration movement was much the same in 1881 as in 1880.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Ciencias Médicas—Revue de Médecine—Revue de Chirurgie—Night and Day—La Independencia Médica—Medical News—Weekblad—Church of England Pulpit—Revue d'Hygiène—New York Medical Journal—Boston Journal of Chemistry, etc.—Archives of Medicine—Detroit Lancet—Canada Lancet—Nature—Journal of the British Dental Association.

BOOKS, ETC., RECEIVED—

Report on the London Water-Supply—Ectropion, by Louis H. Tosswill, M.B.—Treatment of Ear-Diseases, by Samuel Theobald, M.D.—The Liverpool Ladies' Charity and Lying-in Hospital, Liverpool, an Address by J. E. Burton—Spirillum Fever, by H. Vandyke Carter, M.D.—Foot-and-Mouth Disease, etc., in Cattle, by M. Bouley.

COMMUNICATIONS have been received from—

Dr. CRICHTON BROWNE, London; Mr. HERMAN, London; Dr. K. W. MILLICAN, Kington; Dr. J. W. LANGMORE, London; Brigade-Surgeon L. KIDD, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Mr. A. CHILDS, Crewe; Mr. REGINALD HARRISON, Liverpool; Dr. F. T. ROBERTS, London; Dr. NORMAN CHEEVERS, London; Dr. E. F. WILLOUGHBY, London; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE MEDICAL SOCIETY OF LONDON; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON; Dr. ALFRED JOHNSON, London; Mr. GRIFFITHS, Hereford; THE BEDFORD OF THE ROYAL COLLEGE OF PHYSICIANS, London; Mr. LIDDIARD, Carlisle; Dr. ALFORD, Taunton; THE SECRETARY OF THE HARVEIAN SOCIETY OF LONDON; Mr. E. BILLING, Gloucester; Mr. BURTON, Liverpool; THE SECRETARY OF THE ROYAL INSTITUTION, London; Mr. OSCAR DAWSON, Chelsea; Sir J. FAYRER, London; Dr. CROCKER, London; Dr. CREIGHTON, London; Mr. FREDERICK STEVENS, Local Government Board, London.

APPOINTMENTS FOR THE WEEK.

March 25. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Professor H. G. Seeley, "On Volcanoes."

27. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. Radcliffe Crocker will exhibit two Examples of Lichen Planus affecting Mucous Membranes. Dr. Robert Lee will describe a New and Enlarged form of Inhaling Machine. Dr. Gilbert Smith will give the Clinical Record of a Pulmonary Cavity that Ulcerated through the Intercostal Spaces. Mr. A. Pearce Gould, "On the Advisability of Enucleating the Axillary Glands in the Removal of Scirrhus Mammæ."

28. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
ROYAL INSTITUTION, 3 p.m. Professor John G. McKendrick, "On the Mechanism of the Senses."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. S. Fenwick, "On the Presence of Bile in the Saliva, and on the Variations in the Amount of Sulphocyanide of Potassium in the Saliva of Persons affected with different Diseases." Mr. Thomas Bryant, "On a Case of Excision of a Stricture of the Descending Colon through an Incision made for a Left Lumbar Colotomy."

29. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Green.
ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Dr. J. Burdon Sanderson, "On the Pathology of Inflammation." (2nd Lumleian Lecture.)

30. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.
ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On the Resemblances of Sound, Light, and Heat."
HARVEIAN SOCIETY, 9 p.m. Dr. Morton, "On Two Cases of Meningitis." Dr. Ferrier, "On the Pathology of Lead-Palsy."

31. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.
ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Dr. J. Burdon Sanderson, "On the Pathology of Inflammation." (3rd Lumleian Lecture.)
ROYAL INSTITUTION (Council Meeting), 8 p.m.; 9 p.m. Mr. W. Spottiswoode, "On the Electric Discharge in a Magnetic Field."

LUNATICS IN ITALY.—The census taken October 31, 1881, of the inhabitants of the twelve lunatic asylums and hospitals in Italy shows that at that date they consisted of 17,471 lunatics—viz., 9000 males and 8471 females.—*Gaz. Med. Lombardia*, March 4.

ORIGINAL LECTURES.

ABSTRACT OF

THE GULSTONIAN LECTURES

ON

PULMONARY CAVITIES: THEIR ORIGIN,
GROWTH, AND REPAIR.

By WILLIAM EWART, M.D. Cantab., F.R.C.P.,

Assistant-Physician and Pathologist to Brompton Hospital for Consumption;
Physician to the Belgrave Hospital for Children;
Demonstrator of Physiological Chemistry at St. George's Hospital.

LECTURE II.

MR. PRESIDENT, FELLOWS, AND GENTLEMEN,—Among the varieties of pulmonary consumption enumerated in my last lecture, there is one which in its history differs so widely from the rest that I have ventured to isolate its description from that of other forms.

The term hæmorrhagic phthisis, so frequently used by clinical observers, is not free from the reproach of ambiguity. Hæmoptysis, even of the recurrent type, occurs from three very different causes: (1) as the result of confirmed phthisis; (2) as an early complication of the congestive forms of the disease; and (3) as an event not dependent upon pre-existing phthisis, but capable of producing the latter. The results in the three cases are equally divergent. The first variety of hæmoptysis, so commonly due to pulmonary aneurism, usually terminates in fatal hæmorrhage. The second, supervening in the midst of a pneumonic phthisis, almost invariably leads to serious exacerbations and to rapid breaking down. There can be little doubt that the third variety comprises the strictly hæmoptoic forms. According to Dr. Reginald E. Thompson, hæmophilia bears the responsibility of the hæmorrhage in a majority of these cases, and, if I understand him rightly, phthisis and excavation are events subsequent to the local disablement of the lungs by the products of hæmorrhage. The stagnation of the residues of hæmoptysis had been mentioned by Morton and by Hoffman, and Niemeyer had described their infiltration in the alveoli as a factor in catarrhal pneumonia. But Dr. Reginald E. Thompson was the first to emphasise that the worst results are apt to ensue not so much in the vicinity of, as at a distance from, the seat of the hæmorrhage, and in localities which are almost constant. It would carry me too far to attempt any detailed description of the resulting *hæmorrhagic nodules*, of their aspect, of their constitution, and of the puckering and pigmentation which they occasion.

My present inquiry more specially concerns the subsequent fate of the nodules. The excavation to which they frequently give rise is slow to be established, but is rapidly carried through. In this double peculiarity is found a satisfactory explanation for the clinical events. It was long since noted by Niemeyer that, after hæmoptysis, tissue-destruction and flattening of the chest were often detected at an early period; but he likewise admitted that blood residues might, under favourable circumstances, never lead to excavation. This tolerance of the lung for solid residues of fibrin is a proof, according to Dr. R. E. Thompson, of the non-irritating quality of the blood, and the absence within the deposits of degeneration is due to the plug of fibrin, which extends for some distance up the bronchus, effectually protecting the bulk of the deposit from contact with the air. Spontaneous breaking down occurs in the nodule whenever septic matter was originally mixed with the impacted blood: hence the disastrous effects of hæmoptysis in an incipient catarrhal pneumonia, especially if already softening. The blood inhaled under these circumstances leads to more of pneumonia and to less of consolidating fibrosis than would have resulted in healthy tissue, and the masses are from the first marked out for disintegration. More usually the softening is secondary to the dislodgment, or to the absorption of the protecting plug, or else to the progress of ulceration from a neighbouring cavity. In the more fortunate cases, the nodule, as elsewhere described, softens within its membranes; its contents may be coughed up, and the resulting vomica may undergo contraction. The stiffness, pigmentation, and the

puckering of the limiting layer, which often sends out fine radiating striæ into the surrounding spongy tissue, for a long time indicate the mode of origin of these excavations.

At the time when excavation overtakes the deposit the process of fibrosis is usually an accomplished event. As long as it remains confined within the limits of the capsule, the destructive process excites in the lung neither irritation nor reaction; but should the membrane, as too often happens, give way, the surrounding tissue, taken as it were by surprise, can offer no obstacle to a spread of irritative pneumonia far beyond the limits of the original hæmorrhagic infiltration.

Should the nodule be seated at the periphery, the same insidious ulceration may attack the pleura. I believe this event to be a common cause of pneumothorax; and it should be noted that the posterior axillary region, where perforation of the lung so frequently takes place, is also one of the situations pointed out by Dr. R. E. Thompson as most obnoxious to the inhalation of blood in hæmoptysis. The sternal region, which is especially liable to blood-nodules, is rarely the seat of pneumothorax. I have observed, however, an instance in which perforation resulted in this situation, and in another case softening of a blood-nodule at the base was followed by the same event.

With these cursory remarks I close the subject of the etiology of cavities, and I would invite you next to a study of the anatomical characters and of the functional peculiarities of pulmonary cavities.

The *shape* of vomicae is generally given by the mode of their formation. They originate in deposits, which, being usually peripheral and situated around a bronchial termination as a centre, impart to the softening roughly a spherical outline. But their ultimate contour is governed by a variety of circumstances, especially by the extension of the inflammation in one or the other direction, and by the coalescence of outlying groups. This fortuitous element renders it impossible to point to any special variety in shape as being absolutely typical of cavities, and we cannot apply literally to them the statement of Rindfleisch, "that every space acted upon by uniform forces, either from within or from without, tends to a spherical shape." Unassailable as a mechanical principle, this proposition is scarcely appropriate in the case of pulmonary vomicae. Even in their later stages, when the contraction, which I shall have occasion to describe, approximates their internal surfaces, the forces acting upon various points of their circumference are usually unequal. Pleural adhesions are a source of irregular traction. The persistence of bronchial connexions favours shrinking in definite lines, and the influence of outlying consolidations further disturbs the even pressure of the spongy tissue by which they are surrounded.

Whilst admitting the great uncertainty of the shape of cavities, I am led to believe that in definite districts of the lung excavation roughly tends to assume definite development. Nowhere is this more apparent than in the pectoral region. Superficial cavities in this situation, if of sufficient size, invariably acquire a flattened condition in harmony with the bronchial distribution. Cavities at the apex proper are ovoid or roundish; in the mid-dorsal region they are habitually spherical. But in all situations whenever excavation increases largely, it tends more and more to assume the ultimate dimensions of the lobe affected.

More important than the inquiry into the shape of cavities is a determination of their *size*. When cavities approach the surface this determination can be effected without much error, but it is rendered uncertain by the presence of an intervening layer of lung tissue, whether spongy or consolidated. In the first case the cavernous sounds are imperfectly transmitted, in the second they are apt to be conducted beyond the excavated region. Thus it frequently happens that the cavity diagnosed is larger than the cavity discovered after death. On the other hand, cavities may be, and often are, underrated by the ear, putting aside the comparatively rare cases in which their detection is rendered impossible, owing to the occlusion of the corresponding bronchus. Our estimate of the size of vomicae is further unsettled by the presence of trabeculae and of secretions which restrict the area of sound-production or impair the sonorous vibrations.

It is no part of my present duty to point out the elements of a correct clinical diagnosis; my object was simply to call

attention to the great assistance which our practical conclusions would receive from a more accurate knowledge of the anatomical varieties of excavation.

It is customary in describing cavities to allude to the *trabeculae* which they so often contain. The absence of *trabeculae* in cavities of recent date point to their having been produced from an extensive pneumonia or from some equally destructive congestion affecting the whole area of excavation. In chronic cavities the removal of *trabeculae* is effected by a slow superficial necrosis which I have described as never absent from the internal surface of cavities. It is hastened by all those circumstances which promote the necrotic process, and especially by maceration. As an instance of this last influence I would point to the excavations situated at the posterior part of the upper lobe and in the mid-dorsal region, where, owing to the supine posture, fluid secretions are apt to be retained for long periods.

Anatomical peculiarities are in favour of a more extensive and of a more persistent trabeculation at the pectoral region than at other parts. In this situation, behind a tolerably shallow layer of spongy tissue, the main bronchial ramifications form a *pes anserinus* of considerable strength, and the larger divisions of the bloodvessels contribute greatly to the resisting power of the district. Thus the cavities in the pectoral region would be mainly trabecular; those at the apex proper, and especially at the posterior apex, where the bronchial and vascular supply is terminal, mainly non-trabecular.

In size and in aspect *trabeculae* differ widely. They may form bands of substantial thickness or mere cylindrical cords. They are liable to present every degree of ulceration; but they all agree in possessing a lining similar to that belonging to the cavity. Their destruction usually proceeds with the greatest activity at the point furthest removed from their attachments, and when disruption has finally occurred the divided stumps gradually waste and disappear.

The exact nature of *trabeculae* has been the subject of some divergence of opinion even among competent observers, a circumstance which I am at a loss to understand. By some the vascular nature of *trabeculae* is upheld, and it cannot be denied that bloodvessels often constitute the only bond of connexion between the opposite parietes of a large cavity. This is, indeed, the usual appearance presented by completed excavations due to caseous pneumonia. But the smooth surface, the tough yellowish aspect, closely resembling in colour and consistence the fibro-elastic coat of a large artery, and the mode of branching special to the bloodvessels, constitute as many unmistakable features, which render impossible a confusion between the latter and *trabeculae* proper.

Trabeculae have too often been stated to consist of bronchial tubes. From a large number of observations I am able to affirm that patent bronchi very rarely, if ever, enter into their composition. I cannot recall more than one instance of a bronchus traversing a cavity of some magnitude, and even in this case the tube was the seat of incipient ulceration.

As pointed out by Dr. D. J. Hamilton, *trabeculae* commonly are inserted into the side of a bronchus. If the bronchial tube which appears to enter a *trabecula* be carefully probed, the instrument introduced at the bronchus cannot be made to pervade the *trabecula*, but issues immediately in a direction parallel to it, clearly showing that the tube has been gutted. In earlier stages the bronchial tube presents a series of fenestrations in which we readily recognise the orifices of ulcerated bronchioles. The larger air-tubes are gradually overtaken by the same ulceration, but the peri-bronchial sheath, with its vessels, remains an important constituent of the *trabecula*, and assists in no small degree in its conversion into fibroid tissue.

I have placed before you drawings and diagrams of *trabeculae*, both in longitudinal and in transverse section, demonstrating the partly alveolar nature of their structure. The sections exhibit the following component parts:—1. Bloodvessels usually contracted and thickened, and occasionally obliterated. 2. A layer of spongy substance, always much collapsed. 3. Fibrous elements, such as normally belong to the peri-bronchial sheath. 4. A false membrane, analogous to that which lines the cavities. If I understand rightly the mechanism of the formation of *trabeculae*, the latter are but bridges of pulmonary tissue, which originally

separated distinct cavities, and had escaped the influence of the disease until deprived of their air-supply by the laying open of their bronchi. The collapse of the alveolar tissue, and its transformation into a compact layer tightly fitted around a branch of the pulmonary artery as an axis, are nothing more than late consequences of the bronchial ulceration.

In their ultimate shape *trabeculae* may be said to consist largely of elastic elements—namely, collapsed alveoli and vascular membranes. The importance of this fact will become apparent when I describe the mechanism of the contraction of cavities, and will afford some excuse for the development which I have given to this part of my subject.

Concerning the *bloodvessels* which traverse cavities, I need add but little to what I have incidentally stated. When finally laid bare by gradual removal of the condensed spongy tissue, the surface of the artery becomes an excellent indicator of the slow destruction which incessantly proceeds within cavities. This secondary ulceration of the bloodvessels constitutes the real danger of hæmorrhage. It was pointed out by Dr. Douglas Powell, in his book on Consumption (second edition, 1878, page 74), that the fibrotic cavities of old standing are most likely to develop aneurism, and that aneurism is more especially found on the exposed sides of vessels which are partly buried in indurated tissues. I have often verified the correctness of this observation. For the fact itself, the following appears to me to be a satisfactory explanation. Owing to their persistent connexion with living lung-substance the flow of blood within the vessels in question suffers no diminution; but inasmuch as in the segments of their wall, which is sunk in fibrous structures, absolute rigidity has taken the place of the elasticity natural to vascular membranes, the blood-pressure is entirely thrown upon the exposed segments, which are ill-nourished and weak. The tendency to bulging once established, becomes progressive.

A description of those vessels which do not traverse the cavity, but are distributed to its walls, must be deferred until my next lecture, and I will pass at once to the consideration of the relations of *bronchi* to *vomicæ*. As long as the excavation is lobular the conditions are simple, the *vomica* is terminal to the bronchiole. This lobular stage is extremely transient; in most cases the destruction attacks from the first, or in rapid succession, several groups of lobules, and the good-sized trabeculated cavity which results intersects the path of numerous air-tubes.

The mechanism of the destruction of the bronchi throws much light on the pathology of the pulmonary changes. Let us follow the course of an ordinary bronchus of the third order passing through an early excavation. The bronchioles, formerly distributed to the excavated region, are represented by simple perforations resembling the holes in a surgical drainage-tube. These perforations impair the air-conducting function from the first; but, gradually enlarging at the expense of the bronchial wall, they lead to its ultimate destruction. Inasmuch as the proximal perforation—that nearest the trachea—is swept by a more powerful draught, it is apt to suffer earlier and more severely than the more distal perforations, which are not reached by the air-currents until the latter are attenuated by the first leakage; it follows that a bronchus will give way at a point in the cavity nearest the root of the lung; and this in reality happens with great regularity. The ultimate removal of the remains of the bronchial tube is merely a matter of time. As the cavities acquire extension, the same process is repeated in the case of bronchi of a higher order, until the presence of strong cartilages delays for a while the advance of the ulceration. The stumps of the larger bronchi, when denuded, usually present a terminal perforation which acts much in the capacity of the eye of a catheter; but here also the ulceration of the orifice of a bronchiole ultimately taps the tube at the level of the cavity-wall.

The completeness with which the cavity may be drained greatly depends not only upon the position, but upon the size of the bronchial orifice. I have often found the aperture of outlet to be out of all proportion with the size of the *vomica*, fibrosis and contraction having taken place in the peri-bronchial sheath. Where two or more large bronchial divisions terminate in the same cavity this contraction is invariably more advanced in the upper branches, which have comparatively little work to perform. In the contraction of the bronchial orifices we find an explanation for the great

difficulty attending the expectoration of the contents of very chronic vomicae; the patients are struggling with mechanical disadvantages which no medical treatment can wholly remove.

The changes which I have described as occurring at the proximal side of cavities proceed likewise, although less rapidly, at its distal aspect. As a late result, the fibrosis extending from the cavity-wall, and the cell-proliferation special to the mucous membrane, lead to an ultimate obliteration of all air-tubes not actually in use; but during the interval which precedes this occlusion the distal segments of numerous smaller bronchi take their origin, as it were, from the cavity, any air they may obtain being derived from the vomica, and contaminated with its impurities. This is a fertile source of a secondary infection for the surrounding spongy tissue. More favourable in this respect are the cases where the interruption of the bronchial air-current has led to a collapse of the corresponding respiratory district.

The contents of vomicae possess for the physician considerable practical interest. In the early stages of cavities it is usual to find within them structural traces of the tissues whose removal has led to excavation. More or less suppuration always accompanies the discharge of the products of disintegration, and persists for a time in the fully cleared vomica; but sooner or later the pyogenic energy of the internal surface becomes exhausted. The patches of bronchial membrane by which mucus was secreted gradually become absorbed, and secretions, if present, are more watery. Hence it has been correctly observed by Lebert that the older a cavity the more fluid are its contents.

In proportion as the walls of the cavity become rigid from fibrosis and the bronchial orifice less patent, the secretion is with greater difficulty expelled; that the latter should become somewhat offensive is nothing more than we should expect. More habitually, however, we are astonished to find that septic decomposition is almost entirely absent from the contents of vomicae in phthisis.

The occasional occurrence of decomposition in the secretions of cavities leads us to inquire into the influences which may be exerted by this cause upon the walls of vomicae.

Whether active or slow, continuous or intermittent, the slight absorption occurring through the latter has for its consequence a progressive thickening of the surrounding lung-tissue proportionate to the irritation. I readily admit that mechanical factors have a share in promoting the fibrosis. So contractile an organ as the lung cannot with impunity be retarded in its movements by the presence within it of patches of consolidation or by the uneven traction from a thickened or adherent pleura. These mechanical agencies must, however, be considered as secondary in importance to the more subtle influences of chemical irritation.

Formation of simple fibrous tissue is but one result of irritation by absorption. I propose to devote a few remarks to another more important consequence arising from the same cause. I refer to tubercle, and first to that form of tubercle which is observed with great frequency in the immediate vicinity of the cavity-wall. Tubercle in this situation is clearly local and secondary. We are familiar with its exact analogue in the trachea. When in a case of excavation at the right apex we find the trachea deeply ulcerated and tubercular at a point of its left wall, about one inch above the bifurcation, in a line with the axis of the right bronchus, we possess a proof the formation of secondary tubercle under the direct influence of a primary excavation. A wholesale ulceration of the trachea, and even of the larynx, occurring under similar circumstances, is capable of the same explanation. These observations are of extreme importance as establishing the causation of tubercle from the direct application of the contents of a cavity to the healthy mucous surface. If the comparatively resistant structures of the trachea suffer such marked lesions from this form of irritation, how much more decisive must be the effect produced on the tender wall of the alveolus or on the bronchiole? Thus we are prepared for the recognition of a form of secondary pulmonary tubercle purely irritative in its origin, not necessarily arising in visible contact with the primary disease, but capable of being generated at considerable distances from it by the impact of air contaminated with the products of disintegration; and it may be incidentally stated that such is the usual origin of the bunchy or racemose tubercle.

But let us return to a consideration of the ordinary

phthisical cavities. Bordering upon the latter, I have almost invariably found large dense masses of tubercle, resembling, by their pigmentation, by their firmness, and by their tendency to fibrosis, the usual racemose deposits. From these, however, they differ both in their size and in their shape; they present a wider expansion and a cuboidal rather than a spherical outline. The position in which they are found is remarkably constant in relation to cavities. Their seat of election is the upper axillary border external to the cavity so usually found in the outer part of the upper lobe; and they extend from the external wall of the cavity to the visceral layer of the pleura. Next in frequency of occurrence is a tubercular mass in the middle third of the axillary region, commonly filling the wedge-shaped summit of the lower lobe. This mass borders upon the cavities which I have shown to be so constant in the dorso-axillary region. Lastly, I have frequently found a smaller mass at the outer apex, as a dependency of a vomica which did not reach the summit of the lung. The reason for the uniformity of these situations will be readily perceived if we refer to the diagram of the bronchial distribution. A line drawn through the bronchi supplying the upper axillary region will be seen to traverse the cavity situated in the upper lobe; similarly the bronchus belonging to the lower axillary region is interrupted by the dorso-axillary excavation, and the same relation subsists at the apex. With the help of these observations we can readily appreciate the cause of the tubercular masses. The tubercle is a local consequence of the chronic cavity. At its distal aspect the cavity-wall intercepts a set of nearly parallel bronchioles through which irritation is conveyed to the terminal air-sacs, and the cuboidal extended shape of the resulting tubercular deposit is a simple consequence of the mode of its origin. The great constancy of the axillary deposit is obviously connected with the active respiratory function of this part of the lung, owing to which some irritating matter is inevitably drawn to the periphery along the divided bronchioles.

I have attempted briefly to describe the anatomical peculiarities of cavities, and some of their results. I must now pass to a study of their subsequent growth and multiplication.

In the early stages of excavation the most frequent mode of extension is by simple coalescence of neighbouring vomicae. The intervening tissue, thinned by ulceration, finally gives way at the weakest point, and the resulting communication rapidly widens, until little remains of the original separation. A similar perforating process may affect the interlobar septum, and throw the cavities which it separates into a huge vomica; often, however, the ulceration of the septum is due to the rapid extension of a single cavity situated above it, into the lower lobe as yet free from disease.

Two vomicae situated on the divisions of the same bronchial stem sometimes coalesce by an ascending ulceration of their respective bronchi. The latter are destroyed as far as the bifurcation of their apparent trunk, which then opens directly into the vomica.

In a third variety, a cavity in the course of its extension encroaches upon a neighbouring bronchial territory, laying open some of the bronchioles. Respiration, which is comparatively more active in the invaded district, hitherto healthy, will lead to an inhalation into the latter of the contents of the cavity, proportionate to the strength of the inspiratory current. Excavation, usually of a moist and rapid kind, will necessarily ensue, and involve the whole bronchial district in question. I have illustrated by means of a separate diagram this important mode of the extension of the disease.

The three varieties to which I have alluded are all peculiar to young cavities still in process of formation. The increase in size of the fully formed vomicae is much more gradual, and generally due to the slow necrosis incessantly at work within them. Occasionally, however, in consequence of the necrosis, outlying caseous masses may be exposed to the action of the air, and a somewhat sudden extension of the main cavity may take place at their expense.

Cavities in the progress of phthisis tend to increase in number as well as in size. The position of the younger cavities is not entirely the result of chance. The prevalence of cavities in the dorso-axillary region, to which I alluded in my last lecture, points to an element of regularity even in the later development of phthisis, and to the operation of definite causes, which we may study with profit. A recognition

of the extension of the disease, from the apex downwards, was among the earliest results of improved methods of investigation. In one sense this is but a corollary of the proposition so prominently asserted by Louis as to the frequency of apex-phthisis. The position of the secondary mischief not only beneath, but in the vicinity of, the primary lesion could not fail to be construed in the sense of extension by continuity; and this impression, if I mistake not, is still uppermost in the minds of many. The existence of a progressive tendency in phthisis it is not in my power to deny, but I venture to oppose the view that inflammation necessarily extends by continuity of structure. Among the achievements of modern medicine we can point with just pride to the recognition and to the furtherance of the curability of phthisis. It is now very generally admitted that pulmonary consumption may sometimes be arrested. We have all witnessed the progress and the recession of pulmonary vomicae. This curability, special to some cases, rests entirely upon the local character of the lesions. In these cases the disease is obviously not propagated by a creeping process.

The mechanism of the reproduction of cavities from above downwards, especially in the axillary region, will be best understood from a glance at the physiological and anatomical conditions.

You will observe, from an inspection of the diagram, that on either side the main bronchus divides essentially into two branches, the upper (A) being destined for the apex, and the lower (B), which is more strictly speaking a continuation of the main bronchus, supplying its divisions to the base. In any careful dissection, horizontal branches will be seen to traverse the back of the lung from its root to the axilla. In either lung two of these are present; I will call them for convenience the *upper* and the *lower posterior-horizontal bronchi*. The anatomical differences between the lungs occasion a corresponding difference in the origin and distribution of these tubes. The right upper lobe, possessing posteriorly a greater height than the left, includes the upper posterior-horizontal bronchus, which takes a direction parallel to the septum and immediately above it; whilst the lower posterior-horizontal branch occupies a similar position in the lower lobe. In the left lung these branches both belong to the lower lobe, which rises considerably higher at the back than the right lower lobe. The upper branch is by far the more important on this side, but the relative size of the two branches is liable to vary.

The origin of the upper posterior-horizontal bronchus differs widely on the two sides; whereas on the right this bronchus is a branch of the bronchial stem A, on the left it usually opens immediately beneath A into the main bronchus continued. I have witnessed its occasional derivation from A, but would consider this an abnormality. The lower posterior-horizontal bronchi present no differences; on both sides they originate in the posterior wall of B, rather more than one inch below the primary division, being the first tube given off by B, with the exception of the bronchus (L s) destined for the lower sternal region, which has its orifice in the anterior wall.

I would call your attention specially to the close relation existing between the upper branches and the bronchial supply to the upper lobe, and also to their rigidly patent circular orifice, a peculiarity which they share with the bronchial tubes of the apex. All branches originating below this point present a somewhat flattened oblique orifice, the patency of which is probably subject to variations. The posterior wall of the bronchus from which the lower branch arises is liable, owing to its position, to be clogged by viscous secretion during the hours of sleep, when sensitiveness of the membrane is lessened, and mucus would the more readily cling to this surface on account of its fine rugæ. The implication of the lower branches is, however, an event subsequent to the excavation in the distribution of the upper, which I propose to consider first.

Owing to the close bronchial relations subsisting between the apex and axilla, the enfeebled current through the tubes of the apex, and the exaggerated traffic through the axillary branches, inevitably lead to axillary excavations. The secretion, imperfectly propelled by the deficient expiratory effort of the diseased apex through the main upper bronchial division, is in danger of being sucked, by the deep inspiration which succeeds cough, into the neighbouring bronchus which supplies the axilla.

Such is the history of the common dorso-axillary cavity. The cavity is subject to variations as to its exact position; it often originates in the mid-dorsal region, or it may begin at the side and subsequently extend into the back. These differences are mainly determined by the course taken by the inhaled particles, either into one or into the other bronchiole. Cavities in this situation are commonly destitute of trabeculae. This is probably the result of the early undermining of the chief bronchus of the district.

The extent of the irritation set up by insufflation of the secretion of cavities depends upon the regional activities of respiration. The axillary district, which is remarkable for its respiratory capabilities, is also distinguished by the frequency within it of secondary changes. Secondary tubercle in this region invariably occurs on the distal side of the cavity—that is to say, rather to the front than to the back of the axilla; and if a transverse section be carried through the lung parallel to the front of the chest, it will divide the tubercle in the angle of the lower lobe situated between the septum and the axillary border. The mass of tubercle encountered by the section is often but the zone of irritation of a cavity which a deeper section will bring into light. In proportion as the cavity extends and intercepts fresh bronchi, the tubercular mass progresses towards the sternum; and if time be allowed, the greater part of the outer portion of the lower lobe may become infiltrated by bunchy tubercular deposits.

The disastrous agency of insufflation of morbid products from vomicae is not limited to the production of a dorso-axillary cavity. Some of the lesions belonging to the latest stages of phthisis are under the same influence. With the progress of disease the increasing respiratory distress renders the unaffected regions more and more liable to inhalation of secretion. During the attacks of dyspnoea, which mark the last days of the unfortunate patients, the expiratory efforts of the diaphragm produce an appreciable current towards the sternal and basic fringes; and abundant secretion is drawn and impacted into the distended alveoli. The resulting pneumonic masses present well-marked characters. As large as a pea, or as an almond, they stand out boldly in the midst of the hyperinflated tissue; and they are remarkably deficient in colour, probably owing to the anæmia induced in the pulmonary alveoli from distension. In these respects they present a striking contrast with the deposits due to more chronic irritation. The softening of these masses, if death should be sufficiently delayed, and if œdema should supervene, proceeds with great rapidity.

The lesions which I have last described occur so late in the disease that their recognition is seldom possible, nor is this of any special importance. Of vital moment is, on the contrary, the discovery of a cavity in the axillary region. The absence of this lesion in any case of phthisis adds greatly to the chances of the patient; its existence in cases where youth or a naturally strong constitution does not establish a redeeming influence is almost equivalent to a warrant of death.

EXAMINATION FOR TRICHINÆ.—According to John Phinn, the parts of an animal that should be first examined are the diaphragm, tenderloin, and muscles about the head and throat. In a ham the most likely place is that part at which the muscle ends in a tendon. Cut off a thin slice with a very sharp knife or with a pair of scissors curved on the flat. This thin section should then be soaked for some minutes in acetic acid, spread out on a thin piece of glass, and covered with another similar piece. These two slips are then pressed together. A compressorium, by means of which the plates of glass are forced together by a lever and screw, answers admirably. But better still, he finds the trichinoscope, which is a compressorium holding the two glass slips, but fitted with a simple microscope on a sliding frame, which permits the examination of the specimen in each part. His plan is as follows:—A thin piece of flesh, moistened with equal parts of acetic acid and glycerine, is placed on the lower plate, and spread by means of needles fixed in wooden handles. The upper plate is then brought down to the lower one, and the screw is turned into the slot in which it fits. By turning the nut, any degree of pressure may be brought to bear on the flesh, which is thus rendered so thin and transparent that any trichinæ present will be readily brought into view.—*New York Med. Record*, March 11.

ORIGINAL COMMUNICATIONS.

A NEW METHOD OF
TREATING INVETERATE AND TROUBLESOME
DISPLACEMENTS OF THE UTERUS.

By WILLIAM ALEXANDER, M.D., F.R.C.S.,
Visiting Surgeon to the Liverpool Workhouse.

THE cure of uterine displacements by operative methods is never entertained in cases where the malposition is recent and can be rectified by reposition and rest, or by instrumental appliances that do not distress the patient. There are, besides the cases included in the above-mentioned category, a great number of others whose lives are a torment to them by reason of the inefficiency or irritation of pessaries. The fact of every gynaecologist of any note using a pessary or pessaries of his own invention proves that all but the most recent and untried ones are often ineffectual. Many women, again, have a natural dislike to wearing such instruments, and to the periodical re-adjustments which their use necessitates; and, although the misfortune of displacement is in them permanently palliated by the pessary, they would willingly undergo any reasonably safe operative procedure that would be likely to release them from manipulations so distasteful to them. Such an operation is that which I now intend to describe.

Before I thought of it, I performed the only operation hitherto described for prolapse of the uterus, in which the vaginal canal is contracted and the perineum fortified by means of plastic operations that are as numerous as the operators themselves. Although these operations do good in a certain number of cases, their success depends on the absence of all dilating causes. The external dilating causes can be abstained from, but are not; whilst the internal causes are always at work, and hence in the very worst cases, where operation is most necessary, the result is the least satisfactory. I have performed several operations by the old method, and only in one was I quite successful, after the lapse of three months. In that case I had to modify the operative methods of preceding operators in a radical and useful way; but as since that time I have devised a better method, applicable to all cases, I will not refer to the case further.

My method of operation was led up to by several considerations of an anatomical character, which I will first refer to.

In the performance of gynaecological operations on the cervix uteri it is a well-known fact that even the virgin uterus can be drawn down with forceps until the os presents just inside the labia. The multiparous uterus can be extruded further and with much more ease. The resistance to further extrusion arises from the peritoneum connecting the uterus to other organs, and from the broad and round ligaments. The round ligaments do not resist the extrusion of the uterus so much as the other structures. Their special function I will in a moment mention.

The force required to pull down the uterus is very small, and far inferior to the pressure of the abdominal contents upon the pelvic outlet during straining. We know how peritoneum can stretch or yield in hernial protrusion, so that if the perineum and the support of the vaginal walls were the only obstacles to prolapse of the uterus, prolapse would be the rule, and not the exception. In other words, if the uterus were an intrapelvic wedge, so placed as to be supported only by the vagina and perineum, and its axis so directed that the intrapelvic pressure could act upon its fundus in the direction of the vaginal canal with the greatest available force, no woman could be found with her uterus unprolapsed.

The uterus, when in the normal position, is scarcely subjected to any force that tends to produce protrusion. The sacrum and coccyx bear the greater part of the pressure in one direction, and the pubic bones bear the pressure in another direction. Whatever maintains the uterus in this normal position is the great preventive of prolapse. For the virgin uterus, the natural resilience and coaptation of the surrounding organs is probably sufficient; but when these fail, the round ligaments are the chief agents. These ligaments are "attached to the upper angles of the uterus,

one on either side, immediately in front of the Fallopian tube. From this point each ligament proceeds upwards, outwards, and forwards, to gain the internal inguinal ring; and after having passed, like the spermatic cord in the male, through the inguinal canal, reaches the fore part of the pubic symphysis, where its fibres expand and become united with the substance of the mons veneris. Besides areolar tissue and vessels, the round ligaments contain plain muscular fibres, like those of the uterus, from which, indeed, they are prolonged."—(Quain.)

These ligaments, so placed as to manifestly prevent backward or forward swaying of the fundus uteri, are unfortunately subject to stretching, as nearly all soft tissues are, provided the force be persistent enough. This force arises in repeated pregnancies, uterine congestions, and from other causes well known to gynaecologists, that change the position of the uterine wedge, and overcome the staying force of the round ligaments by stretching them. If complete retroflexion or retroversion takes place, prolapse is not so serious; but it is when the retroversion is partial, when the uterus comes more into a line with the axis of the pelvic outlet, that the pressure of the abdominal contents acts with most efficiency, and with a persistence that is certain to produce protrusion, if not complete prolapse.

If we could replace the uterus, and maintain it when replaced in its normal position and direction, we should at once take away its tendency to prolapse. We cannot easily increase the resiliency of the surrounding tissues, but we can do what my operation consists in, and that is, "*pull out the slack of the round ligaments.*"

The operation is performed by cutting down upon each abdominal ring, gathering up the ends of the ligaments, freeing each from its nerve, and gradually releasing them by patient and cautious traction from the neighbouring tissues, until the position of the uterus, as ascertained by the finger in the vagina, satisfies the operator. The ligament is then stitched to the tissues around the ring, and the loose ends attached to each other or rolled round two pieces of wood, which are fastened together in the middle line. The picking up of the ends of the ligament is the *difficult* point, and the freeing of the ligaments from their surroundings is the *delicate* point, but by experience both can be performed easily and effectually. The ligament slides within its sheath, and the peritoneum is not disturbed. No risk of hernia or of pelvic inflammation occurs. Beyond some pain for the first few days, the operation is harmless if carefully performed, but experiments on the dead subject have shown me that danger may arise from incautious operators.

Case 1.—Elizabeth C., aged thirty-eight, a well-nourished woman of medium stature and relaxed pelvic organs, was admitted into the Liverpool Workhouse Hospital, suffering from prolapse of the uterus to such an extent that the cervix presented outside the labia.

On October 4, 1882, I performed the vaginal operation, and narrowed the vagina to a finger's width. On December 1 the uterus did not appear externally, but was pressing forcibly downwards upon the narrowed vagina. The bladder and rectum were bulging forwards and backwards as if all these organs were endeavouring to escape by the vaginal outlet. The dragging pains that the woman suffered from were unabated, and the only improvement was that we did not see the uterus with the naked eye when the vulva was exposed.

On December 14 I performed my operation on the round ligaments. Two inches of the slack of each were pulled out and cut off, and the ends stitched by numerous catgut sutures to the boundaries of the wounds.

On January 6 the wounds were quite healed, and a dimple in the centre of the cicatrix showed where the ligaments had formed their attachments.

The patient complained of some pain during the first two days. This was relieved by morphia injections. I examined the patient on February 27 in the erect position. The uterus remains fixed in the position into which it was drawn at the time of operation. Coughing and straining does not tend in the least to produce prolapse. The cervix merely sinks a little downwards and forwards in the direction of a normal uterus, but not quite so much as a normal multiparous uterus would sink. The reason of this is that the ligaments have been made more "taut" than the normal ligaments ever are; and this increased support is necessary where these ligaments only have to be depended upon. The vaginal

walls are still relaxed, but not so much as at the time of operation, and it is to be expected that, when the dilating wedge is removed, the stretched tissues will recover somewhat of their former resiliency if the stretching process has not already gone too far.

The dragging pains have left her completely, and the woman is quite at liberty to rejoin her husband. Pregnancy is not an event likely to occur in the present case, or in many of the cases upon which operation for prolapse is necessary. But if it should occur, one of three things might happen—the curtailed ligaments might refuse to allow the uterus to rise into the abdomen, and abortion would result; or the ligaments might stretch sufficiently to allow the uterus to rise, and might recover their tone after the birth of the child; or they might fail to recover their tone after delivery, and the prolapse would recur.

When cohabitation has been provided for, the chief object has been attained, and the superiority of the present operation over all others vindicated. Pregnancy completely destroys the results of the lower operation, and, theoretically speaking, it may not destroy the results of this the higher operation.

Case 2.—Bridget K., aged forty-five, was admitted to hospital on January 15, 1882, with chronic prolapse of uterus and bladder, from which she had suffered for many years. She was operated on on February 1, and two inches of the slack of the round ligament pulled in. This patient had an attack of bronchitis, induced by ether, upon the chronic form of the disease, from which she has suffered for some time. The constant coughing increased the pain of the wounds, and her temperature ran up to 101° during the first three days. The wound did not heal by the first intention, but granulated. On February 20 the wounds were healed and the uterus fixed in the position in which it was placed at the time of operation. On February 27 the results are the same as in the preceding case. The pressure of straining does not affect the uterus, and the maintenance of the cure is certain.

Bronchitis is a barrier to the performance of the operation, from the pain produced by the coughing, and where there is any tendency to it I would recommend the use of chloroform in preference to the use of ether.

Case 3.—Ellen T., aged twenty-eight, has had a prolapse of the uterus and anterior vaginal wall for several years. She has been in and out of hospital for the last year and a half, and treated without effect by various kinds of pessaries. I had contracted the anterior vaginal wall without effect, and was about to operate on the posterior vaginal wall and perineum, when the idea of the round ligament presented itself to me. On January 4, 1882, I shortened her ligaments. Her temperature never rose above 100°, and she only complained of some pain for three days.

I examined her in the erect position on February 27, and found the uterus in position, and affected by coughing and straining in the same way as the other two cases. This patient is an epileptic, and is at present in hospital for the treatment of that disease.

Although I first practised this operation for prolapsus uteri, the very principle upon which it is founded, and the way in which it acts in prolapse, imply that it is a radical cure for retroversions and retroflexions of the uterus.

Case 4.—Elizabeth D., aged thirty years, was admitted on September 17, 1881, with retroflexion of the uterus of a most marked kind. Pessaries failed to relieve her, and the menstrual period was one of great trouble to her and was marked by the occurrence of epileptic fits. The operation was performed by pulling out the round ligaments as before. In this case I failed to catch up one ligament properly, and by only one was the uterus brought into position. There was scarcely any rise of temperature, and the wound had healed soundly by January 13.

I examined this woman on January 30. The retroflexion is completely cured, and the sound passes in the normal direction. The epileptic seizures were unaffected by the operation, although the distress experienced at the menstrual periods is completely cured. She is now undergoing some medicinal treatment for epilepsy preparatory to operative treatment.

The only other case of retroflexion in which I have performed the operation was on a patient of Dr. Irvine's. The wounds have not yet healed, and I merely mention the case now to say that about a week after the operation she

menstruated, without any pain. This she had not done for years.

In extreme cases of anteversion I believe the operation would be as useful as in retroflexion or as in prolapse, but I have not had an opportunity yet of proving its efficacy.

It seems to me rather surprising that such a simple, rational, and effectual operation had not been thought of before. The operation is entirely extra-abdominal, and lethal consequences can only follow where erysipelas, pyæmia, or other causes that may produce death in the simplest wound, come into play.

Before anyone performs it, I would recommend considerable practice on the dead subject, by which the "knack" of seizing and pulling out the ligament can be discovered much more easily than by reading any lengthened description that I could possibly give.

PHTHISIS WITHOUT SPUTA.

By H. A. LEDIARD, M.D., F.R.C.S. Eng.,

Surgeon to the Cumberland Infirmary;
formerly Medical Superintendent to the Central London Sick Asylum,
Cleveland-street.

J. H., aged fifty-three, waste-paper dealer, was admitted into the Cleveland-street Infirmary on April 12, 1878. He stated that there was no consumption or other complaint in the family, and that he had been healthy all his lifetime up to three months ago, when he lost his business, and it depressed him. His illness commenced with cold and cough; he has lost flesh, and suffered from night-sweats, but never spat blood.

On examination of the chest it was found that the left front was very dull, with moist sounds heard all over it, and the heart sounds were very distinct. Posteriorly there was cavernous breathing at the apex, with moist sounds lower down. At the right apex also moist sounds were heard, but there was no dulness, and the bases of the lungs were healthy.

I was somewhat surprised to find that there was never anything in his spittoon, and told the nurse to observe carefully if he threw anything away. I also cautioned him not to swallow any matter that he might bring up. There was little or no dyspnoea or cough; he lay on his back, and never suffered any pain, gradually becoming worse, having occasional attacks of diarrhoea, and died on May 22, 1878, having been more than five weeks under observation, during which time he never spat anything, and had the most trifling cough only. I showed this case to Dr. Douglas Powell about a week before the man's death, and at that time the chest symptoms were more pronounced than ever. I regret very much that the friends would not sanction a post-mortem examination.

I give briefly notes of a second instance of the condition under consideration, which has lately come under notice. A coal miner, twenty-nine years of age, was admitted into the Cumberland Infirmary on July 27, 1881, for disease of the wrist-joint. In August he had an attack of pleurisy with effusion, and in September he was found to have a dry cough, night-sweats, and loss of flesh. On examination the left apex was found consolidated and softened, and the right apex showed similar, although less marked, changes. No improvement being made, the patient was sent to the seaside on November 11, but returned on the 25th with the pulmonary affection unchanged. A few weeks later he went home to Maryport, and died on January 21, 1882.

This patient was under observation for ten weeks, during which time active disease was going on in the lungs, and yet no expectoration was present, and very little cough. I interested the nurse in the case, so that she might observe if any sputa ever came up, but it was never seen; the only foreign matter in the spitting-cup ever seen was a little froth, and a small quantity of greenish watery fluid.

It is somewhat remarkable that although the ages of these men were different, yet death ensued exactly four months from the commencement of the disease. In neither was there any hæmoptysis, and in neither was there any cough to speak of; and this is intelligible, for had there been any purulent secretion in the bronchial tubes, expiratory efforts would soon have cleared it away.

That the morbid state present in these cases was pneumonic phthisis I think very likely, for the physical signs

were those usually met with, and the aspect of the patients was in no respect different from what is usually seen in phthisis. I have no doubt whatever that large cavities were present; and, if so, what became of the products of the destroyed tissue?

I can only suggest that the destructive process seen in joints known as "caries sicca" may be somewhat analogous.

Finally, from the rapid downward progress of these cases it is evident that the absence of sputa is not at all a favourable sign in this form of lung-disease.

Carlisle.

NOTE ON A CASE OF RANULA.

By C. B. LOCKWOOD, F.R.C.S.

It seems to be generally agreed that in almost every case of ranula the cyst has no connexion with the ducts of the salivary glands. This point is supposed to be proved by the fact that in nearly all cases a probe can be passed into the submaxillary (Warton's) duct, and no communication discovered between it and the cyst. (a) This method seems to exclude Warton's duct in a satisfactory manner. There are other salivary ducts in the immediate proximity to which it cannot be applied. There is no particular reason why the ducts of the sublingual glands should not be capable of distension and conversion into ranula. If any salivary duct be distended with secretion, the contents of the cyst might reasonably be expected to possess the usual properties of saliva. In the case of ranula the chemical and physiological characters of the contents may be taken as evidence of its source. Mr. Baker, (b) in his paper written to show that ranula has seldom or never any connexion with Warton's duct, mentions that "it is said" that the chemical composition of their contents differs from saliva. He does not give any definite experiments, and none are to be found in the usual text-books; it may, therefore, be worth while to make a note of a case in which they were made.

E. W., aged fourteen, presented herself with a very large typical ranula beneath the right side of the tongue. It had only been noticed two months. The submaxillary ducts were not probed, but appeared free and discharged ordinary thin saliva. A large piece was snipped out of the cyst-wall and the contents saved. They consisted of about two drachms of a very tenacious yellow transparent fluid of faintly alkaline reaction. A portion was found to be soluble in distilled water, from which it was precipitated white and opaque by the addition of acetic acid. Solution of perchloride of iron produced no claret-coloured reaction: it may therefore be inferred that no sulpho-cyanide of potassium was present. Added to starch solution, and kept for some time at a gentle heat, no conversion into glucose was discovered: the fluid therefore contained no ptyalin; it appeared to consist of almost pure mucin.

It might be argued that the contents of this ranula may have come from a salivary gland, but have been so long in the cyst as to have become inert. If they had been originally saliva great condensation must have occurred, and it might therefore be expected to have been made more active than usual. Moreover, these ferments do not lose their activity when kept for very long periods. A glycerine extract, for instance, remains active for an indefinite period.

It seems probable that the cyst in this case was due to the distension of one of the sublingual mucous glands.

ANOTHER NEW CONGRESS.—According to the *Deutsche Med. Woch.*, the plan is entirely matured of calling together a "Congress for Internal Medicine." While the German ophthalmologists, hygienists, psychiatrists, balneologists, pædiatrics, and above all, surgeons, have organised themselves into separate bodies, beside the general congress of naturalists and physicians, internal medicine has hitherto been without its separate organisation of that kind. It has been resolved, then, to call together such a congress at Wiesbaden in April next, and Prof. Seitz has undertaken all the preliminary steps relating thereto.

(a) Marrant Baker, *St. Bartholomew's Hospital Reports*, 1871; also Birkett, *Guy's Hospital Reports*, 1859—quoted by above.

(b) *Ibid.*, page 40.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

CASES OF MALIGNANT ENDOCARDITIS.

(Under the care of Dr. SIDNEY COUPLAND.)

(Concluded from page 279.)

Case 3.—*Ulcerative Endocarditis of Aortic Valve—Secondary Ulceration of Ventricular Endocardium and formation of Cardiac Aneurism—Nephritis—Irregular Pyrexia.*

HARRIET V., aged twenty-two, a dressmaker, unmarried, was admitted into Murray ward, on May 21, 1881, suffering from swelling of the feet and legs, præcordial pain, and shortness of breath. She gave the following account of herself:—Her father died of "heart disease" at the age of sixty-three; her mother was living, sixty-seven years old. She had lost two brothers from "consumption" at the ages of seventeen and twenty-one respectively. Three sisters were living and healthy. She believed that when seven years old she had rheumatic fever; otherwise had enjoyed good health until about six months ago, when she began to be attacked with pains about the joints and in the left side of chest, and with shortness of breath. Six weeks ago, however, she was seized somewhat suddenly with acute pain in the right elbow; and in the course of the same day with pain in the whole limb, and in the back. At the same time she was rather light-headed; but two days later she resumed her work, which she had to abandon after a short time, owing to her being attacked with severe chills and fits of shivering. These have recurred on and off ever since. She attended a dispensary for about a week after the onset of the chills, and her legs began to swell.

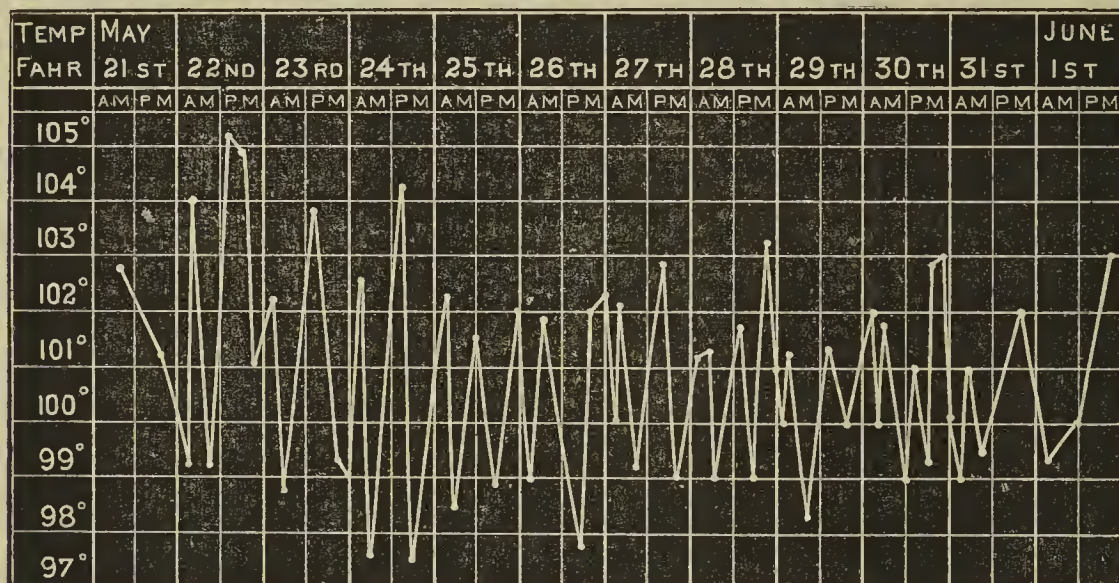
State on Admission.—A well-nourished but very anæmic girl, with puffy face and anxious expression; complaining of pain at the heart and shortness of breath. The skin is hot and moist, temperature 102° 8'; pulse 144. Joints are natural. The cardiac impulse can be felt over the whole of the præcordia to left of sternum; it is undulatory in character. The apex-beat is half an inch below and half an inch to the inner side of the nipple, and is preceded by a well-marked thrill. There is no epigastric pulsation. On percussion, the area of absolute cardiac dulness is found to commence above at the third rib, and to extend rightwards for an inch beyond the mid-sternum. The carotid and other main arteries pulsate violently and visibly. At the apex a distinct double murmur (presystolic and systolic) can be heard; mostly soft and blowing—at times musical. The systolic element is audible in the left axilla, but not in the back. At the base, loudest over the third left (pulmonary) cartilage, there is a rough double bruit conducted over a wide area—to right of sternum, and also down that bone, the diastolic element being very distinct at the xiphoid. A loud bruit is heard in the carotids. The pulse is full, bounding, jerky, non-compressible, and not markedly collapsing. Pulmonary signs natural. The tongue is large, pale, slightly furred; it is tremulous. Bowels open. Abdomen rather full; no evidence of ascites. Liver dulness reaches from sixth rib to costal margin. Urine: specific gravity 1015, acid, high-coloured, depositing lithates, free from albumen.

Progress of Case.—At 9 a.m. on the 22nd, patient had a slight rigor, and the temperature rose to 104°, having been 99° 2' three hours previously. At 10 a.m. it was 103° 8'. She sweated profusely at night, and had another rigor. The sweats were a marked symptom throughout. Her face assumed a deadly pallor, and the tongue became glazed and brown. The pyrexia continued its irregular course (see *Chart*). May 25, her condition was much worse, and she had suffered from vomiting five times during the night. Morning temperature 98° 4'; pulse 120. She complained of pain and tenderness in the loins, and the character of the urine now became altered. It was of a reddish-brown colour, with a copious dirty-brown sediment, acid, specific gravity 1018. It did not give the blood-reaction with ozonic ether and guaiacum, but contained albumen; and the deposit was found to consist of pus cells, a few blood discs, and some pale granular casts.

From that time to the close the urine was never free from some purulent deposit; occasionally it contained blood; and the albumen was always more than the amount of pus could account for. There was undoubtedly nephritis, as well as pyelitis or renal abscess (the sudden appearance of pyrexia favouring the latter view), possibly due to embolism; for, whenever the deposit was examined microscopically, casts were found, some cellular (epithelial or pus?), a few fatty degenerated. The quantity of urine became very scanty, and, although the face looked puffy, it did not become more œdematous, nor did the anasarca increase.

For three days following the first appearance of the pus the temperature took a lower range, not reaching 103°, but the type of the pyrexia remained unmodified. As shown in the chart, it was most irregular, *e.g.*, on the 26th it reached 102° thrice during the day, being 99° to 97·8° in the intervals; on the 27th, 102·4°, 102·2°, and 102·8° were three maxima, with 100°, 99·2°, and 99° as intervening minima—and so on, there being no constant recurrence of any given temperature, although there was a certain periodicity about its course. She did not suffer so frequently from chills; but at times still perspired very much. She became depressed and drowsy, losing desire for food, sometimes vomiting.

At one time uræmia was feared, but under digitalis and saline diuretics the flow of urine was increased; and although she did not make much progress, her rather sudden death was not anticipated. It took place early on the morning of June 5, being preceded during the previous afternoon by an attack of breathlessness and præcordial pain, a rise of temperature to 103·4°, of pulse to 148, and respirations to 60. Shortly before death the temperature fell to 95°.



Post-mortem Examination.—Marked œdema of face and legs. Muscles pale and thin. Six ounces of fluid in the right pleural sac, four ounces in the left. Some adhesions at apex of left lung, which contained a few caseating nodules. In both lungs there were patches of collapse and much engorgement, but no recent consolidation and no infarctions. The heart was not much enlarged; it contained semi-decolourised clot in the right chambers, passing into the pulmonary artery. Similar clot to less amount in left ventricle. The heart-walls were pale, flabby, and speckled with whitish points and striæ (of fatty degeneration) beneath endocardium, especially of left ventricle. Tricuspid, pulmonary, and mitral valves were natural, except that the last-named had a pinkish, swollen appearance of its margin, but it was free from vegetations. There was really no mitral endocarditis. On viewing the aortic orifice both from the aorta and from the ventricle, it appeared to be blocked by vegetating masses. On laying open the vessel it was seen that these vegetations were limited to the region of one cusp only, *viz.*, the right or anterior cusp; the central and left (or the two posterior, as they are more correctly termed) being perfectly normal. Below the diseased cusp the ventricular endocardium was eroded, and a small aneurismal pouch, partly filled with clot, was shut in by the vegetations, which, however, did not completely close it, for its cavity communicated with the aorta through the mass of vegetations. Externally, the aneurism, which was about the size of a French bean, appeared as a projection above the upper

margin of the left auricular appendix, as this crosses in front of the aorta. The liver was soft, and weighed 56 ozs. The kidneys were enlarged, weighing each 6 ozs.; smooth on surface, capsules readily stripped off. They presented the characters of acute nephritis in the second stage, the cortex in each being swollen, pale, cream-coloured, and soft, streaked by engorged vessels. No infarctions, abscesses, pyelitis, cystitis, or any source for the pyuria in the renal passages occurred. Spleen—11½ ozs., soft, pulpy, engorged; presented no infarcts. Pelvic organs natural. There was much venous engorgement of the cerebral pia mater, but no evidence of embolism.

Remarks.—This patient was much younger than the other two whose cases have been related, being only twenty-two years of age. Beyond a doubtful history of rheumatism in childhood, she had enjoyed good health, and six months before her admission had evidently an attack of rheumatism, in which the articular manifestations were not severe. The heart must have suffered then, and its lesion was no doubt increased by the fact that she took hardly any rest, but resumed her work, until, some weeks later, she was forced by the occurrence of chills and fever and dropsy to abandon her duties. Her aspect on admission was that of renal dropsy, although at first no albuminuria was present. In a few days her condition became obviously worse. Vomiting, rigors, sweatings, and lumbar pain, almost coinciding with the appearance of albuminuria, with pus, blood, and casts in the urine. The appearance of pyuria in connexion with the cardiac inflammation and irregular pyrexia suggested either pyelitis or renal abscess, or else renal embolism with suppuration; but the albumen was always in excess of the

amount of pus, and a general nephritis was diagnosed, complicating the cardiac disease. The main features of the case may be thus summarised:—

1. There was no evidence of any previously existing valvular disease, and in that respect we have an exception to a tolerably general rule that these forms of malignant endocarditis are grafted on already damaged valves. But in this case, as in Case 1, the recent change was limited to one valve (the aortic, and not the mitral), and to one cusp of that valve. From the appearances it might be inferred, as in the other cases, that a rupture of the valve had caused the inflammation and explained its limitation. Of course this cannot be proved, but neither in this nor the other cases does the clinical history suggest such a sequence. It is far more probable that in the mild rheumatic attack there was slight aortic endocarditis, and that the neglect to take sufficient rest not only intensified the inflammation, but determined the rupture of the diseased cusp; or perhaps, more strictly, the disease was "ulcerative" in character from the first.

2. In this case, also, the secondary effects of a vegetating endocarditis were shown by the erosion (from friction) of the ventricular lining membrane below the diseased cusp; and, as a result of this loss of substance, the formation of a small cardiac aneurism.

3. The lesion of the kidneys precisely resembled that seen in Case 1. It was a diffuse nephritis, not dependent upon embolism (at least microscopical), and yet consecutive to the endocarditis. As in that case, so here, it was probably dependent upon the blood-contamination produced by this disease. The pyuria is unexplained. There was no vaginal discharge, and no post-mortem evidence of cystitis or pyelitis; possibly it was due to a slight catarrhal form of the latter, which left no marked change in the mucous membrane.

4. Once more—in spite of the presence of conditions so highly favourable to their formation, there was no gross evidence of embolism, nor even any capillary ecchymoses beneath serous membranes, which many of these cases show, and which are no doubt correctly regarded as evidence of

blocking of very minute vessels. But in this case, as in the others, the spleen was enlarged and softened—one of the most constant morbid changes due to septic infection.

Commentary on the Series.—In concluding these cases it may be desirable to condense into a brief summary the leading features of the class of disease to which they belong, and of which they are such typical examples. This necessarily involves pathological considerations, which will be taken first.

1. The natural tendency of endocarditis, from whatever cause, is to the formation of vegetations—i.e., to fibrinous deposits on the inflamed and altered tissue of the valve. The degree to which this production of vegetations may proceed is, of course, most varied; but in many cases where patients die years after the acute attack, and in whom the affected valves have become more or less deformed, thickened, and destroyed, evidences of the prior existence of vegetations are indelibly recorded in the presence of relics of infarcts in various organs.

2. But valvular vegetations may not only be swept away in the blood-current; they may, and often do, excite by their friction against the wall of the heart or opposite valves, localised patches of inflammation, proceeding to ulceration. In that way, cardiac aneurisms and aneurism of the aortic or mitral valves may be set up. In the *Pathological Transactions* for 1876, page 73, Dr. Coupland recorded such a case, where a mitral aneurism was initiated by the friction of aortic vegetations. He has observed similar instances since; whilst many others, notably Drs. Ogle, Moxon (who first drew attention to friction effects), Fagge, and Legg, have published cases of the same class.

3. It is most important, however, to bear in mind that such vegetating endocarditis may be *simple*, that it may lead to embolism and to secondary ulceration without the case presenting the clinical features of *malignant* or “*ulcerative*” endocarditis. (a) Hence the term “*ulcerative*,” as applied solely to these malignant forms—those, namely, in which the clinical course is that of septic fever rather than of cardiac disease,—is misleading. It tends to narrow the pathological conception and to confound clinical distinctions. For that reason, the term “*malignant*,” originally employed by Virchow to these cases, has been re-introduced as a heading for this series.

4. If the foregoing statements be founded on fact, it follows that in the cases of malignant “*ulcerative*” endocarditis there must be another element superadded to impress on them their peculiar clinical type.

5. That element has been discovered by Heiberg, confirmed by Klebs, Osler (*Sequin's Archives*, February, 1881, page 44), and others, in the presence of fungoid organisms in the vegetations of these cases. The clinical distinction has long been known, and the term “*septic*” endocarditis was in use long before the phrase “*mycosis endocardii*” came into being. For example, Jaccoud, in the “*Dictionnaire de Médecine et Chirurgie*,” vol. xii., published 1870, article “*Endocardite*,” clearly discriminates between vegetating endocarditis and “*septic*” endocarditis, and points out the two clinical forms of the latter—that simulating typhoid fever, and that resembling pyæmia. In this country, Wilks, Sibson, H. Thompson, and others, have recognised the same distinction.

6. Quite lately, Dr. Goodhart directed the attention of the Pathological Society to the fact that cases of vegetating endocarditis are prone to occur whenever septic disease is prevalent. But *prima facie* his statements would seem to prove too much, unless each of the cases he referred to presented clinically as well as pathologically the character of *septic* endocarditis.

7. In what manner the valves of the heart become the seat of this “*mycosis*,” it is impossible, with our present knowledge, to state, but conjectures have not been wanting. It must not be forgotten, and Dr. Goodhart's suggestion supports this, that the cardiac lesion may be the result, and not the primary cause, of the blood-contamination. Once established, however, the diseased vegetations become the foci for the metastatic dissemination of the septic organisms.

8. As a rule, this particular form of endocarditis attacks valves already chronically diseased. Two of the foregoing cases illustrate this frequent association.

(a) The notes of two such cases lately under Dr. Coupland's care will be published shortly.

9. These three cases resemble one another in belonging all to the pyæmic type of malignant endocarditis. Dr. Wilks, to whom so much is owing for our knowledge of the subject, lately (*British Medical Journal*, January, 1882) drew attention to the other type, that marked by typhoid symptoms. It is possible that the virus in the one case differs from the virus in the other, as the typhoid virus may be supposed to differ from the virus of septicæmia. The following quotation from Jaccoud gives a concise statement of the pyrexia observed in the pyæmic type, and it will be seen how closely it resembles that illustrated by the foregoing cases:—“In this form, as in the preceding” (i.e., the typhoid form of septic endocarditis), “the onset is usually abrupt, but in place of a single rigor on the invasion of the fever, there are during the early days *repeated rigors*, the recurrence of which is marked by no regularity; sometimes, indeed, they occur twice in the course of the same day, sometimes every day, or more seldom an interval of several days elapses between them. Occasionally their repetition is so regular as to lead one to think the case one of intermittent fever. The rigor is followed by marked heat, and sweating, occasionally profuse, more often moderate. . . . The thermic cycle of this form presents much analogy with that of purulent infection. It is essentially characterised by marked variations and irregularities between extreme elevations and profound depressions” (*loc. cit.*, page 298). To this may be added the remark of Dr. Henry Thompson (“*Clinical Lectures*,” page 86; London, 1880), that in these cases the pulse-rate is out of all proportion to the thermometric curve.

Given, then, signs of endocarditis with the above pyrexial type, and constitutional symptoms of a typhoid character, and there can be no doubt of the nature of the case, and of the lethal prognosis that must be made in the presence of such indications.

CROTON CHLORAL HYDRATE IN NEURALGIA.—Dr. C. J. Fox (*Medical Bulletin*) reports seventeen cases of facial neuralgia successfully treated by croton chloral hydrate. His formula is as follows:—Croton chloral hydrate ʒij., glycerine fl. ʒij., aquæ fl. ʒiv.—m. In ordinary cases he gives a teaspoonful three times a day, but if the symptoms are very urgent a teaspoonful every two hours until the pain is relieved. In hysteria accompanied by convulsions it is particularly valuable; and in large doses its hypnotic effect is marvellous. Dr. Fox says that its primary action is clearly marked by anæsthesia of the head, and not until after this does its influence extend to the organs of the body.—*Louisville Med. News*, February 25.

UTERINE AND VAGINAL CANCER.—Dr. Funk, of the Vienna General Hospital, has studied, under the most favourable auspices, the etiology of all forms of this, and thus sums up the results of more than twenty years' observation:—“1. Syphilis has no causative relation to cancer in these localities, though I have seldom seen the co-existence of the two diseases. 2. Heredity cannot be shown by the most critical analysis of the cases which I have seen. This point is one of much practical importance, as I have very frequently been consulted where the subject of matrimony has been discussed. In every case, I believe, I have relieved myself of grave moral responsibility by saying positively that there is absolutely no evidence of hereditary transmission of the disease. This, of course, I believe does not obtain in cancer occurring in other localities. 3. Parturition has been emphasised by Dr. Graily Hewitt as a cause, but, I must think, entirely without foundation in truth. I have had extraordinary facilities for observations in regard to this point, in the lying-in wards of Profs. Carl and Gustav Braun and Spaeth, and so speak positively. 4. Traumatism is never the cause of cancer. I have seen, it is true, a carcinoma spring from the place where a pessary caused pressure. In that case, however, I am convinced that the relation was only a coincidence. 5. Acute and chronic inflammation connected with the female sexual organs, of all forms and conditions, occur so frequently in the Vienna prostitutes, of whom we have great numbers, without eventuating in any more serious disease, that I am convinced they are never the starting-point of cancer. 6. At present I am not in a position to offer any theory as to the etiology of carcinoma in connexion with the female sexual organs. All I can do is to criticise the asserted causes and await developments.”—*Phil. Med. Times*, March 11.

(a) "Die Albuminurie im gesunden und kranken Zustande." Von Dr. H. Senator, Professor in Berlin. Berlin, 1892. Pp. 116.

cism of these. He restores some of the older pathology of albuminuria to its rightful place, and he concludes that there may be at least three factors in the production of that condition as it shows itself in disease. These are—(1) changes in the circulation within the kidneys; (2) changes in the membranes intervening between the blood and the urine; and (3) changes in the blood itself. We shall briefly follow the discussion of these three factors in their order.

One of the commonest problems of experimental physiology in recent years has been an attempt to determine the effects upon the quantity and quality of the urine produced by changes of the blood-pressure. But the experimenters have not always appreciated the complex conditions of the secretion of urine, and fallacies have often crept into their argument. The urine is comparable to a stream fed from two sources, which differ in the amount of water they contain and in their composition generally, and which do not entirely follow the same laws. The one source—the transudation from the glomerular vessels—is more watery, and yields some albumen, as well as the ordinary constituents of all transudations; the other source—the secretion of the glandular epithelium in the tubules—is perhaps less in quantity, free from albumen, but laden with the specific substances of the secretion. The one is chiefly subject to the laws of filtration, while the glandular secretion is regulated by other influences as well. A second complexity is that, with increase of blood-pressure, the amount of the urine of filtration increases; but it is more difficult to detect albumen in urine thus diluted. Thirdly, the distribution of the vessels within the kidney is peculiar, and the effect of changed blood-pressure on the two sources of the secretion cannot but be unequal. Fourthly, the walls of the vessels, or other membranes, as well as epithelial cells, may be affected, as regards their nutrition, by the changes of blood-pressure, and may so become more permeable to albumen. Lastly, the lymph-stream in the kidney is dependent upon the blood-pressure, and is not without influence on the composition of the urine. Such being the complex conditions of the problem, it is perhaps not surprising that there is little agreement among the various experimenters who have sought to influence the blood-pressure, and have therefrom drawn conclusions as to the pathology of albuminuria. Thus, when the blood-pressure has been raised by electrical excitation of the cervical cord, or by the production of dyspnoea, or by poisoning with strychnine or digitalis, there has been ultimately an increase of albumen. But when the series of events is closely scrutinised, it appears that the albuminuria is due, not to the increase of blood-pressure within the kidney, but to a prior and initial diminution of the blood-supply, caused by a narrowing of the small vessels. The author is equally dissatisfied with the evidence when the increase of blood-pressure has been brought about by ligaturing large arteries or by cutting the renal nerves. The method of raising the body-temperature of an animal in a calorimeter-box appears to him to be the most uncomplicated means of increasing the general blood-pressure. Of this nature were his own experiments, and he invariably found that albuminuria was produced by a sufficiently rapid or a sufficiently prolonged elevation of the body-temperature to the extent of 3° to 6° Fahr. The kidneys of those of the animals that were killed were boiled to coagulate the albumen, and the microscopic sections seemed to confirm the otherwise probable conclusion that the glomeruli were especially the seats of the albuminous exudation.

Professor Senator sums up his criticisms and investigations, as regards the blood-pressure, with the remark that the greater number of the experiments heretofore made have been erroneously conceived, and the care spent upon

them has been to a great extent in vain. From the few passable experiments, and from the corroborative experiences with the human subject, he concludes that heightened arterial pressure in the kidney is by itself capable of inducing albuminuria, provided that the urine becomes at the same time more scanty than normal from the abstraction of water by other ways. Congestion of the kidney, caused by ligature for a few minutes of the renal vein, produced albuminuria, and the albumen in the boiled kidney was found first in the tubules, and secondarily in the capsules. Congestion (from ischæmia) was also produced by ligaturing, for a corresponding period, the renal artery; it was also produced by ligaturing the ureter. In all the instances where congestion was produced by one means or another, albuminuria followed, but the albumen was not always thrown out to the same amount, or in the same part of the renal structure. The various kinds of renal congestion which can be induced by experiment have their counterpart in clinical experience.

The second factor in the production of albuminuria is the degeneration of the renal epithelium, chiefly of the tubular epithelium, but also of that which covers the glomerular tufts of vessels and lines the inner surface of Bowman's capsule. Those who consider the urine to be a glandular secretion free from albumen, must ascribe to the epithelial cells of the kidney the property of preventing transudation from the bloodvessels; and those who, like the author, consider the urine to be a mixture of transudation and true glandular secretion, must also refer to a restraining power of the tubular epithelium, the absence of albumen, at least in the glandular part of the secretion. Consequently, disturbances of nutrition and of function in the tubular epithelium, or complete destruction of the latter, would permit the passage of albumen from the blood and lymph into the urine. There is an analogy for that hypothetical case in acute poisoning by phosphorus and by certain other substances. Fatty degeneration of the renal epithelium is one of the most marked points in the morbid anatomy of phosphorus-poisoning, and albuminuria is one of the most constant clinical symptoms. There appear, indeed, to have been some differences of opinion as to the existence of the albuminuria; but Professor Senator shows that the weight of evidence is entirely in favour of that accompaniment of phosphorus-poisoning, and he gives four experiments of his own which were quite unambiguous. Clinical experience of phosphorus-poisoning agrees with the evidence of experiment. In cases also of pernicious anæmia, fatty degeneration of the renal epithelium and albuminuria go together. The albuminuria of the febrile condition is also associated with renal parenchymatous degeneration; but it is associated with other factors as well, and is therefore of doubtful import as regards the causation. Lastly, there is a peculiar kind of degeneration of the renal epithelium—coagulation-necrosis—which is caused by certain poisons, such as chromic acid, petroleum, croton oil, and cantharides, and is associated with albuminuria.

The third great factor of albuminuria is the abnormal condition of the blood. This was the earliest assigned cause of albuminuria; and it was, in fact, the humoral doctrine which most naturally came to the front at the time when albumen in the urine was first detected by Cotugno. But that doctrine can no longer be maintained in its original sense. In Bright's disease, including the amyloid and the congestive forms, the immediate cause of the albuminuria is not a change of the blood, but of the kidney. There are, however, cases of albuminuria in which there are neither tissue-changes in the parenchyma of the kidney, nor circulatory disturbances; and in such cases it may be said that changes in the blood are the cause. The blood-changes

causing albuminuria may be not only in the albuminous substances of the blood, but also in the proportions of its constituent parts.

THE PECULIAR PEOPLE.

ON Saturday last judgment was given, in the Court for the Consideration of Crown Cases Reserved, upon the case of the *Queen v. Morby*. The prisoner, John Morby, had been convicted at the Central Criminal Court of the offence of manslaughter, in feloniously causing the death of his child by neglecting to provide proper medical attendance. The child died from small-pox. Morby is one of the "Peculiar People"—a religious body, the adherents of which are found chiefly, indeed, we believe entirely, among the lower and illiterate classes. They are a sect of Christians firmly believing, among other things, in the verbal inspiration of the Bible. In the Epistle of James (chapter v., verses 14 and 15) they find the words, "Is any sick among you, let him call for the elders of the church; and let them pray over him, anointing him with oil in the name of the Lord; and the prayer of faith shall save the sick, and the Lord shall raise him up." Their minds appear to be satisfied by the presence of these words, not merely that the practice described in them is a religious duty, but that it represents the whole duty of man in cases of sickness, excluding every other means of relieving suffering or prolonging life. This tenet, or rather the practice which follows from it, has been that which has brought them on several occasions rather prominently before the public eye. They seem to be people inoffensive in every respect but this, sincere in their beliefs, and honestly acting up to their lights.

John Morby's child, as we have said, was taken ill with small-pox. The elder was sent for, the child was anointed and prayed over in the way that appears to these people the scriptural one, but no doctor was sent for, and the child died. A coroner's inquest and a post-mortem examination followed, and John Morby was committed to take his trial for manslaughter. At the trial, the doctor who had made the post-mortem examination gave evidence that he thought the child's chance of recovery would have been greater if proper medical treatment had been adopted; but he could not say that its life would certainly have been saved. Morby was, notwithstanding, convicted of manslaughter. The superior court, however, to which the case was referred, quashed the conviction, on the ground of the uncertain character of the medical evidence. As Lord Coleridge put it, "the utmost that the medical man could say was that 'probably it might have been so.' They must, before allowing the conviction to stand, be satisfied by affirmative proof that the death was caused by the neglect, and when all that a skilled and competent witness could say was that 'probably' it 'might' have been so, the Court could not be satisfied." Mr. Justice Stephen said that for the accused to have been guilty of manslaughter, "it required that it should be shown that the result of the neglect was to cause death which ensued, whereas here that was left in doubt."

Looking at the result of the case, we cannot help feeling that it is on the whole a satisfactory one. There was no suspicion of any criminal intention on the part of Morby; no reason whatever for supposing that he was wanting in affection for his child, or that he did not sincerely wish it to recover, and zealously do all that he thought could be done to save its life. However much we may deplore his stupidity, ignorance, and fanatic confidence in his own interpretation of Biblical teaching, yet these blemishes in his intellectual character are not reasons why he should be branded as a criminal. Enlightenment, and not punish-

ment, is what people of this kind want. To make them into martyrs can only stiffen them in their beliefs, contract their minds still more, and poison their simple faith with an element of rancour against those who differ from them.

The effect of the case has been to make it clear that the law of England recognises skilled medical advice in sickness as one of the necessities which a parent or guardian is bound to provide for children dependent upon him. Morby has been acquitted, not because there was any doubt that the responsibility of the death, had it been proved to result from the neglect to provide medical advice, would have lain upon him, but merely because the proof was insufficient. The recognition of this principle by the law is more important in view of others to whom it may apply than with regard to the Peculiar People at present. As to the latter, we may hope that the spread of education and the demonstration of the power of medical and surgical science and art over disease (a power which every year is becoming more striking) will in time make their faith partake less of the character of superstition. We are sure that medical men will far rather be sent for willingly, from a rational confidence in their skill, than from compulsion, in compliance with a disliked and distrusted law. But we are also sorry to say that, in the face of the revelations which from time to time appear in our courts of law and police, we cannot doubt that there are many scoundrels in existence who would, from motives of economy, of greed, or hate, let children endure suffering which might have been relieved, or lives be sacrificed which might have been prolonged. Such persons would be quite capable of professing a religious motive for their inhumanity, if by doing so they could escape punishment; and it is impossible to find a touchstone by which the real belief and true affection can be distinguished from feigned, with the definiteness which is very properly held necessary for evidence upon which a criminal conviction is to be based.

The medical evidence in this case seems to us to have been very satisfactory. There is no drug which will cut short the course of small-pox, or modify the nature of an attack which has once begun; and therefore the medical witness was quite right when he told the jury that he could not say that the child's life would have been saved. But although there is nothing which will do good, in the sense of having a direct curative influence upon the disease, yet there are many ways in which harm may be done, and an attack made fatal, which the patient would have survived if under favourable circumstances. Medical skill can do much to prevent additional danger being thus added to the malady by the exposure of the patient to injurious influences. Whether or not there was any element of danger in this case which might have been removed by proper care, there is no evidence to show, for no medical man saw the patient during life.

We cannot help thinking that a charge of manslaughter would have been made much more fitly, and could have been supported by far stronger evidence, had it been made against Morby for not having had his child vaccinated. Here is the true cause of the death. The child ought never to have had small-pox at all. Perhaps some day our legislators will see this.

LYING-IN VERSUS GYNÆCOLOGICAL WARDS.

WE have received a pamphlet from which we learn of a movement to convert the "Liverpool Ladies' Charity and Lying-in Hospital" into a special hospital for the treatment of the diseases peculiar to women. This institution, it appears, has at present lying-in wards, a gynæco-

logical department, and an outdoor maternity department. The mortality in the lying-in wards has been during the past ten years at the rate of one in seventy. It is moreover stated that the death-rate in the outdoor maternity during the same period has been only one in 773. From these data it is argued that it would be better to let all the labour cases be attended at their own homes, and use the wards for the reception of gynaecological cases only.

As to the desirability of such a change on account of the local needs of the town of Liverpool, or that part of it in the neighbourhood of the hospital, we will not offer any opinion; for only those can rightly judge who are acquainted with the locality, the needs that exist, and the fitness to meet those needs of the present arrangements in this and other institutions in the town. But in the pamphlet before us some general propositions are either stated or implied, which seem to us erroneous; and upon which, therefore, we feel ourselves called to comment.

We find the high death-rates at the Liverpool Lying-in Hospital, and at other similar institutions, quoted as if they showed that such a mortality was a necessary result of, inseparable from, a lying-in hospital. We do not think this is the case. The fact that in some lying-in hospitals the death-rate has been high, only shows that those hospitals have not been well managed. A hospital might be conducted in such a manner that almost every patient who entered it should die. In some of those of which the statistics are quoted in the pamphlet we have referred to, careful investigation has revealed the cause of the high death-rate, and shown that it depended, not on conditions inherent in the hospital itself, but on carelessness, transgressions of rules, or imperfect performance of duty on the part of officials or servants of the hospital, or of patients themselves. And there are lying-in hospitals in which, by good management, the mortality does not exceed that of private practice; we may instance the Paris Maternité and Cochin Hospitals, and, under its present management, the General Lying-in Hospital, Lambeth. We therefore cannot accept the view that a high death-rate is a necessary result in a lying-in hospital.

But still less can we accept the figure of one in 773 as an accurate representation of the death-rate among the women attended at their own homes. Our experience of outdoor maternity charities is that the reported death-rate rises just in proportion to the pertinacity with which inquiry is made into the after-history of the patients. These charities are worked by midwives, who are poor women, who work very hard to gain a modest living for themselves and their families, and have too many cases to look after to make them anxious to pay more visits than the obligatory number to each patient. If troublesome symptoms appear, and the patient chooses to send for some one whom she considers more skilful than the midwife, the latter, so that she can get paid for the case, is very pleased to have the trouble and responsibility of further attendance taken from her, and probably enters the case in her returns as doing well. It cannot be expected that out of a large staff of midwives every one is to be trusted to search out the after-history of each case with scientific exactness. It is obviously possible, too, that a case of post-partum illness might happen without the knowledge of the midwife after her attendance had ceased. The late Dr. McClintock compiled, as is known, statistics drawn chiefly from the private practice of obstetricians practising among the better classes, and who therefore knew the after-history of their patients, and he came to the conclusion that the average puerperal mortality is about one in 125. When we are told that in the hands of midwives the mortality becomes only one in 773, we can only say that we think it much more likely that there should be errors in their returns, than that the practice of comparative

ignorant midwives should be attended with results so much better than those attained by medical men of eminence.

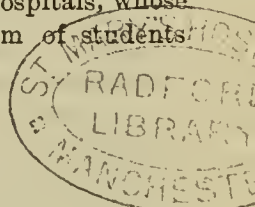
We believe that it is quite possible to get lying-in hospitals so managed that the death-rate shall not exceed that of private practice. We admit, however, that it is difficult, requiring incessant care and the most minute precautions. Were the welfare of the patients attended in lying-in hospitals the only benefit which they afford, we might perhaps doubt whether it was worth while to take so much trouble for so small a result. But there are other reasons for thinking that the disappearance of lying-in hospitals would not be a good thing. There are many problems connected with labour and the puerperal state, for the solution of which the opportunities for close, accurate, and continued observation, which a hospital affords, are required. A lying-in hospital officered by competent men, who should give their whole time to it, would, we believe, be most productive in improvements in the science, and therefore ultimately in the practice, of midwifery. In illustration of this we may point to a paper recently communicated to the Royal Medical and Chirurgical Society by Dr. Money, which was based upon observations made at the General Lying-in-Hospital.

Lastly, we do not look with any favour upon any increase in the number of special hospitals for diseases of women. There are many reasons which make it extremely difficult for a gynaecological specialist to keep in the scientific path; the chief being the impossibility of public demonstration of facts and results, and therefore of effective criticism. Ovariectomy is not a triumph of a hospital, but of one man and his pupils. The tendency of specialists to ride their hobbies too hard does much more harm in gynaecology than in any other speciality. In other specialities—the skin, for instance—ineffective or inappropriate treatment does no greater harm than delay the cure; but the attribution to the uterus of every symptom to which the human body is liable, and the consequent needless meddling with the female generative organs, does harm far greater than is done merely by its failing to cure. In other specialities progress has come from the special hospitals; but in London hardly any scientific work has been done in gynaecology except by obstetric physicians belonging to general hospitals, whose work has been constantly under the criticism of students and colleagues.

THE WEEK.

TOPICS OF THE DAY.

A MEETING, summoned by invitation from Mrs. Gladstone, was held on Tuesday last week at the Prime Minister's official residence in Downing-street, to consider the proposal to establish a Scarlet Fever Convalescent Home for the metropolis. The Bishop of London presided until obliged to leave, when his place was taken by the Lord Mayor; Royalty was represented by the Princess Louise and the Duchess of Teck; the Government by the Prime Minister and the Right Hon. J. G. Dodson; the profession by Sir Joseph Fayrer, Dr. Andrew Clark, Dr. Broadbent, Dr. Farquharson, M.P., Dr. Alfred Carpenter, and Mr. Ernest Hart. The Bishop of London, in opening the proceedings, explained that he had heard doubts expressed as to the desirability of a home of this description, but a host of medical men, some of them the most eminent in their profession, had declared their approval of the proposal "to establish an institution for the reception and isolation of convalescents from scarlet fever, as likely to promote their more complete recovery and also to check the spread of that formidable disease." The first resolution was moved in a telling speech founded on statistics by Mr. Gladstone, who stated as his original contribution of facts that he had just learnt from the



Registrar-General that in the year 1881, although there was a mitigation as compared with the previous year, the deaths from scarlet fever in London amounted to 2371, a very large proportion of these occurring in children under five years of age. He moved—"That it is desirable, in the interests of all classes of the community, to take efficient steps to check the spread of scarlet fever by convalescent patients." Colonel Stanley, M.P., seconded the motion, which was supported by Dr. Andrew Clark, and agreed to. Sir Rutherford Alcock next moved—"That this meeting is of opinion that such object can best be attained by the establishment of convalescent homes where patients recovering from scarlet fever may be isolated until all risk of infection is passed." Dr. Broadbent supported this resolution. The Earl of Rosebery then moved—"That this meeting undertakes to assist the committee already appointed for the purpose, in establishing such convalescent homes." This was seconded by Sir Richard Cross, M.P., and supported by Sir Joseph Fayrer. All the resolutions were accepted by the meeting. A long list of substantial subscriptions already received was read out before the termination of the proceedings.

The Local Government Board has recently communicated to the Birmingham Board of Guardians the result of the inquiry held by their inspectors, Mr. Henley and Dr. Mouat, into certain allegations affecting the medical administration of the workhouse. The inquiry was undertaken in consequence of certain statements contained in a communication forwarded by Jane Burns, lately a nurse at the workhouse. It was proposed by the Guardians that the general working of the medical department of the workhouse should form the subject of inquiry, but it was deemed advisable by the Board that the investigation should, in the first place, be limited to the allegations that blisters and shower-baths had been ordered for inmates, not by way of medical treatment, but as a means of punishment, and that the padded room at the workhouse had been used for the same purpose. After a careful consideration of the report of the inspectors, and of the evidence of the witnesses, the Board have arrived at the conclusion that the principal allegations were unfounded; that no charge of cruelty against the medical officer or the assistant medical officer had been established; that no blisters or shower-baths were proved to have been ordered for disciplinary purposes; and further, that it was not proved that remedial treatment in any form had ever been resorted to as a mode of punishment.

In reference to the great appeal case at present before the House of Lords--the Managers of the Metropolitan Asylums District *v.* Hill and others--more commonly known as the Hampstead Hospital Case, it is announced that the arguments for the appellants, which have already occupied the whole of seven days, have now been concluded, and the further hearing of the case has again been adjourned, their lordships having decided to reserve their judgment. We are taught to believe that the law is no respecter of persons, and, certainly, when it is considered that the decision in the present case affects the interests of the whole metropolis, it must be admitted that our legal arbiters have not allowed any such considerations to hurry them in coming to a final conclusion in this matter.

If the particulars elicited at a recent inquest held before Mr. G. Collier at Poplar are correct, it would appear to be advisable that the Central Authority should at once institute an inquiry. The victims were the two children of a coach-painter, residing at St. Leonard's-road, Bromley, two doors from the parish mortuary. About six weeks ago the drains of the water-closet in his house became stopped up, and the soil penetrated through the floor of the room in which the family lived. The father applied to his landlord, and, after

three weeks' haggling on the score of expense, undertook to effect the necessary repairs himself, for a certain sum. The deceased children were taken ill shortly before the repairs were completed, and a third child is still lying in the house suffering from enteric fever. Dr. Russell M. Talbot, Medical Officer to the local Board of Health, deposed that he visited the house in question; his attention was first directed to the three children, who were all suffering from enteric fever. He attended the deceased until their deaths. The drains had not yet been examined, as the third child was still lying in the house. The cause of death in each case was enteric fever, contracted from the poisonous gases escaping from defective drainage, the soil-pipe being immediately under the kitchen floor. The Coroner considered the landlord had been very neglectful in not having the drains attended to, and he thought there was an evident desire to shift the responsibility from one person to another. The foreman of the jury observed that the drainage of that particular neighbourhood was a disgrace to the Board of Works. Eventually the jury returned a verdict of "Death from enteric fever brought about by defective drainage," in each case.

The Paddington Park Bill has afforded a striking illustration of the readiness of the public to accept any improvement, provided they are not called upon to contribute to its development themselves. A meeting of the representative Vestry of Paddington was recently held at the Vestry Hall, to consider the position in which several thousands of the ratepayers of the parish were placed, through having appended their names to petitions in favour of the Paddington Park Bill, without the knowledge that in doing so they were consenting to the introduction of rating clauses into the Bill, subjecting themselves to a large amount of increased taxation. Mr. James Flood moved the following resolution:—"That, inasmuch as an overwhelming majority of the ratepayers residing within the area proposed to be specially rated, have signed against the rating clauses of the Paddington Park Bill, counsel be engaged to oppose such rating clauses so long as the same shall form part of the Bill." The motion was put, and carried with but five dissentients. Other motions, calling upon the Metropolitan Board of Works to oppose the Bill if the clauses were not expunged, were also carried.

The Wandsworth Board of Works have recently been engaged in an endeavour to bring about the closing of several private wells in their district, but the Wandsworth magistrates have not been unanimous in seconding their exertions. In the case of some wells at Prestbridge, Putney, Mr. Shiel, having heard medical evidence which condemned the water as unfit for domestic purposes, made the requisite order to close such wells at once. But in the case of other wells in Spring-gardens, Putney, Mr. Paget decided differently. Dr. Muter, public analyst, stated that the water was of a dangerous description, being three times as bad as the worst London water. For the defence, Professor Redwood deposed that he had examined the water in question, and he found it agreeable to drink, and as good as any to be found in gentlemen's houses in the country. The defence, moreover, used the physiological test: they produced several witnesses who had used the water themselves, and brought up their families on it, for a period extending over many years, and they had always been and were in excellent health. Mr. Paget said he felt bound to admit that he had never seen a more healthy-looking population; he therefore dismissed the summons in this case, and ordered the Board to pay eleven guineas costs.

In consequence of a recommendation from the Medical Department of the Privy Council, the Registrar-General, acting under the instructions of the Local Government Board, has

caused printed notices regarding new regulations with respect to vaccination to be issued to all the registrars of births and deaths throughout the metropolis, to be followed by a similar distribution in every registration district of the kingdom; such notices to be handed by each registrar to every informant of a birth upon registration. The parents of children registered are informed that, instead of being compelled to have their children vaccinated in the usual manner, they can now have them vaccinated, at their option, with animal lymph, if they choose to go to the stations assigned to the public vaccinators acting under the instructions of the Local Government Board, the addresses of which are given, with the names of the vaccinators appointed for the purpose. We are glad indeed to learn that at last the Local Government Board are ready to supply calf-lymph. They have been wearily long about it.

Recently, in the House of Commons, Mr. Firth asked the President of the Local Government Board whether the reports upon the London water-supply, prepared by Dr. Tidy, Dr. Odling, and Dr. Crookes, and which were circulated as being reports "presented to the Local Government Board," were prepared with the authority or at the request or expense of the Local Government Board. In reply, Mr. Dodson explained that these reports are not prepared with the authority or at the request or expense of the Local Government Board. They are prepared at the request of the water companies, it is voluntary on their part to provide them, and they bear the expense.

The London and South-Western Spring Water Bill is now under hearing before a Select Committee of the House of Commons. The scheme proposes to supply with pure spring water, drawn from the chalk, the important parishes of Epsom, Wimbledon, Putney, Barnes, Mortlake, Roehampton, Sheen, East Sheen, Kew, Richmond, Petersham, and Ham. The matter is likely to occupy the Committee many days, as the Bill will certainly be vigorously opposed by the present metropolitan water companies.

PROFESSOR DR. VICTOR VON BRUNS.

PROFESSOR VON BRUNS, the Director of the Surgical Clinic at Tübingen, who has long been in a state of bad health, has, at his own desire, been pensioned off after a service of almost forty years. The Medical Faculty of the University have presented an address to him, in which his great services to surgery, especially as the founder of laryngeal surgery, are set forth.

THE EDINBURGH MEDICAL MISSIONARY SOCIETY.

We heartily commend to the attention and support of our readers the circular issued by the Edinburgh Medical Missionary Society. The Society had for its founder and first President Dr. John Abercrombie, and for supporters and advocates such men as Alison, Sir J. G. Simpson, George Wilson, and other eminent teachers and practitioners. It has been in existence for forty years, and has done, and is doing, most excellent work. It aids, financially and otherwise, young men who offer themselves for missionary work, besides maintaining in Edinburgh a dispensary and training institution, where the principle of medical missions may be seen in practical operation. It is undenominational; and during the past ten years thirty-four young men have been trained and educated for their work under its auspices, and have obtained the University degree, or some other legal qualification. Twenty-seven of these are now in active service in various parts of the world as agents of various missionary societies. The value of medical missionaries has been well and fully proved; there are at present upwards of 130 legally qualified physicians and surgeons employed in all

parts of the world as the agents of missionary societies; and no little good service has been done by these medical missionaries in the advancement of medical service. The Treasurer of the Edinburgh Medical Missionary Society is John Pringle, M.D., 27, Rutland-square, Edinburgh.

THE INTERNATIONAL MEDICAL CONGRESS.

WE have received a copy of Mr. Barraud's commemorative portrait-picture of the International Medical Congress, which is now being published by Messrs. Baillière, Tindall, and Cox. It is a remarkable memorial of that remarkable and unprecedented gathering of the medical profession. It contains 684 portraits of members of the Congress, including many of the most eminent and best known of the leaders of scientific medicine in all parts of the civilised world—men who, like the Congress itself, will become historical. The grouping and arrangement of a large number of persons so as to form an effective picture must always be a task of great difficulty, but the difficulty has in this instance been admirably surmounted; and very many of the portraits are excellent likenesses. The picture is a most interesting and valuable memento of a great event, and does high credit to Mr. Barraud's skill and enterprise as a photographic artist.

THE CARMARTHEN ASYLUM.

COMMENTING on the dietary of the Joint Counties Asylum at Carmarthen, the Commissioners in Lunacy remark that on the day of their visit the dinner consisted of a stew composed of meat and whole peas; it was rather more of a soup than a stew, and did not look very satisfying. Each patient had with it two ounces of bread. The beverage was water. Malt liquor has been discontinued as an article of ordinary diet, water only being given instead. Having read and considered the present dietary, the Commissioners are strongly of opinion that, in lieu of the beer, milk should be given, skimmed milk being obtainable at a cost of sixpence per gallon. The cost of maintenance has recently been reduced from 8s. 2d. per week to its present rate, 7s. 10½d. A return to the former rate—in itself most moderate—would more than cover the cost of milk. The Commissioners were surprised to learn, further, that there is not in the Asylum stores any wine, spirits, or malt liquor (a note in the report says they were misinformed on this point) available for the use of patients as a medical extra in cases of sickness or of exhaustion from acute attacks which must sometimes occur. With every respect for the non-alcoholic treatment, they think it may be pushed to an extreme, and they cannot help expressing their opinion that there should be provision for such cases as they have indicated, in which the administration of stimulants would be useful, if not indispensable. Most asylum medical officers will recognise the justice of the Commissioners' remarks.

THE PARIS WEEKLY RETURN.

THE number of deaths for the eleventh week of 1882, terminating March 16, was 1216 (647 males and 569 females), and among these there were from typhoid fever 30, small-pox 16, measles 22, scarlatina 5, pertussis 3, diphtheria and croup 60, erysipelas 3, and puerperal infections 9. There were also 52 deaths from tubercular and acute cerebral meningitis, 237 from phthisis, 56 from bronchitis, 103 from pneumonia, 86 from infantile athrepsia (29 of the infants having been wholly or partially suckled), and 34 violent deaths (27 males and 7 females). The number of deaths is below the mean of the last four weeks, and, as compared with the tenth week, there is a diminution of deaths from typhoid fever and measles, but an increase

from small-pox. The admissions for small-pox into the hospitals have increased from 49 to 61. The births for the week amounted to 1283, viz., 659 males (485 legitimate and 174 illegitimate) and 624 females (456 legitimate and 168 illegitimate): 106 infants were either born dead or died within twenty-four hours, viz., 55 males (36 legitimate and 19 illegitimate) and 51 females (32 legitimate and 19 illegitimate).

A NEW FUNGUS AND VEGETABLE BLUE.

THE *Gazette Médicale* states that M. Pasteur has found in the blue and green discolourations which are sometimes seen on old surgical bandages an organism which preserved through many cultivations in different animal and vegetable fluids the same characters and properties. Itself consisting of colourless globular cells from $\frac{1}{1000}$ th to $\frac{5}{1000}$ th of a millimeter in diameter, it has the power of secreting a pigment which may easily be dissolved out by chloroform. The blue or pyocyanine is reddened by acids, and restored by alkalies. Dissolved in a weak acidulated solution, neutralised by potash, and treated again with chloroform, pyocyanine yields a pure blue liquid, from which, after evaporation, it appears in the form of crystals, sometimes as prisms or matted needles, at others as rectangular plates. The watery solution of pure crystalline pyocyanine is neutral and is unchanged by boiling.

REPORT ON THE HEALTH OF MAIDSTONE FOR THE YEAR 1880.

THE annual report of Mr. Matthew A. Adams, Medical Officer of Health for the borough of Maidstone, for the year 1880, calls attention to the dangerous inadequacy of the cottage hospital accommodation provided for the district. Poor and mean as it is, however, Mr. Adams adds that it can be confidently said that during the past year it has been instrumental in limiting the spread of small-pox and scarlet fever. Its resources have several times during that period been severely tried, since in no previous year have anything like so many cases been relieved within its walls. These included ten cases of small-pox, eighteen of scarlet fever, and eight of typhoid fever, with only two deaths. The present accommodation does not exceed, at the most, six beds, and even then the air space is not half what it ought to be; the situation could hardly be more unsuitable, being close and crowded, with no shelter from observation. Such a state of things cannot long continue, and the Local Board are so much alive to the necessity for improvement in this direction, that it is not likely that they will wait for the pressure which would inevitably be brought to bear by the Local Government Board to procure an amendment. Mr. Adams expresses a hope that in his next annual report he will be able to record a satisfactory solution of the difficulty. On the whole, remarkably healthy as the year 1879 was, the statistics for Maidstone for the past year show even an improvement upon the preceding year, the death-rate having been 18.83 per 1000 only. The water-supply of the district is pronounced to be fairly good, but a considerable number of private wells still remain in use, the water from some of which, it can scarcely be doubted, is polluted.

SCIENTIFIC ANALYSES IN CASES OF SUSPECTED POISONING.

ON Monday, the 27th ult., a question having been put, in the House of Commons, to the Secretary of State for the Home Department, as to whether in cases of suspected poisoning, when an analysis was directed to be made; he would consider whether it would not be more satisfactory that the suspected person should have an opportunity of being represented professionally at such analysis, Sir William replied that he had considered the matter, and was clearly of opinion that

it never would do to allow a delicate process of that kind to be conducted by a combination of persons, who might be acting in adverse interests, and thus defeat the object of the experiments, which were necessarily delicate. He could quite understand, he said, the sentiment, and he did not believe that it operated on a few, that the persons who carry out the experiments should not be appointed by the Crown so as to be considered parties in the prosecution. Therefore he proposed to ask the Presidents of the College of Surgeons and of the College of Physicians yearly to appoint two independent, experienced men of science to refer to in cases of the kind for the purposes of performing these experiments. In making that statement he wished it distinctly to be understood that there was no hesitation whatever as to the entire ability and impartiality of the persons who had hitherto been employed by the Crown.

OZONE AS AN ANÆSTHETIC.

THE toxic effects of undiluted oxygen have long been known, and we now learn from the *Berlin. Med. Zeitung* that Professor Binz, of Bonn, has been experimenting on ozone produced by the silent discharge and mixed with air as an anæsthetic. The effect on small animals was very marked; the breathing, at first unquiet, became less frequent until a state of stupor was produced, but without any appreciable action on the heart. Pushed further, it caused considerable depression of the temperature and irritation of the air-passages, with vomiting. Human beings were variously affected, but sleep was generally obtained in from seven to twenty minutes, being preceded by greater ease in breathing. The sleep was deep, and followed by a sensation of weariness lasting some minutes. Further experiments, however, showed that though not so irritating as hitherto believed, it would be quite impossible to replace nitrous oxide by ozone as an anæsthetic.

SIR EDWARD BURROWES SINCLAIR, A.M., M.D., DUBLIN.

WE regret to announce the death of Sir Edward B. Sinclair, which took place on the 24th ult., at the comparatively early age of fifty-seven. He was formerly Assistant in the Rotunda Hospital, and subsequently succeeded Dr. Fleetwood Churchill as King's Professor of Midwifery. He was also Physician to Sir Patrick Dun's Hospital; and as such took part in the establishment of the maternity department. In connexion with the latter he founded a school for the training of army nurses and midwives, the eminent usefulness of which Her Majesty recognised by conferring upon Dr. Sinclair the honour of knighthood.

THE NORTHUMBERLAND COUNTY ASYLUM.

THE Committee of Visitors of the Northumberland County Asylum at Morpeth, which on the first day of the present year contained 428 patients, report to quarter-sessions that the institution is in a satisfactory state under the able and energetic superintendence of Dr. McDowall; and the Commissioners in Lunacy confirm this opinion, and express their gratification that Dr. McDowall's salary has been increased by £70 per annum, adding very truly that good servants can only be secured by masters who appreciate their value. A new recreation-hall, store-room, and vegetable-room, and an increase of accommodation in the male wards, are recommended by the Commissioners, and recognised as necessary by the magistrates, who think that the time is near when it will be necessary to enlarge the Asylum, and with it the administrative department for the working of the whole on a larger scale. Dr. McDowall comments on the disadvantages and difficulties incidental to the incarceration of criminal lunatics in county asylums. To secure

the safe custody of one such patient, he says, it is sometimes necessary to change the discipline and arrangements of a whole ward, and to place otherwise uncalled-for restrictions on the liberty and enjoyments of the other, non-criminal, patients. Dr. McDowall also records his very poor opinion of Mr. Dillwyn's Lunacy Law Amendment Bill. He is surprised that so defective a measure should have reached a second reading.

PROFESSOR KLEBS.

AFTER some hesitation, Prof. Klebs has finally decided to accept the call he has received to Zürich, where he will commence his course in the ensuing summer. In the autumn he will take possession of the recently constructed Pathological Institute.

THE SANITARY CONDITION OF CARLISLE.

A VERY satisfactory account of the sanitary condition of the town of Carlisle is given in the annual report for the year 1880, furnished by Dr. Robert Elliot, the Medical Officer of Health for the district. The births during the period under notice represented an annual rate of 37 per 1000, and the deaths a rate of 22, the population being estimated at 35,000; as compared with the numbers registered in 1879, these figures show a decrease both in births and deaths, to the extent of thirty-one in the former and forty-two in the latter. A highly gratifying circumstance connected with the Carlisle Fever Hospital is, Dr. Elliot remarks, that its accommodation was never during the past year taxed beyond about one-third of its capacity. This Hospital was instituted about sixty years ago, and has exercised no little sanitary influence upon the town. It was under the auspices of the officers of this institution that the first sanitary inspection of the district was made in 1831, followed by a second, less exclusively theirs, in 1843, a third in 1847, and a fourth under Government Commissioners in 1849, in every case with the happiest results. Dr. Elliot also bears testimony to the high quality of the water-supply of Carlisle, and to its unlimited amount in relation to all demands that can be made upon it. The water of the river has been frequently examined, and by different analysts, and always with the most gratifying results. Another accidental occurrence which has been of inestimable benefit to the district was the selection of Carlisle by the railway authorities as a "centre." In carrying out the works necessary to establish a vast station, and all its belongings, some of the worst rookeries and fever dens had to be destroyed, and the health of the town has proportionally improved as modern and sanitary dwellings have been erected to replace the wretched habitations of the olden time.

ROYAL COLLEGE OF MUSIC.—Sir Erasmus Wilson, the President of the Royal College of Surgeons, in addition to the £100 subscribed by him at the Mansion House meeting for founding a College of Music, has just promised £2500 to found a scholarship in the College, with education and maintenance.

CONFERENCE ON CREMATION AT MILAN.—At a conference held last Sunday at the Teatro alla Scala, Dr. Gaetano Pini, secretary of the Milan Cremation Society, addressed a large and distinguished assembly. He detailed the obstacles raised and overcome, and stated that in Milan there had now been completed 177 cremations, and that cremation establishments are about to be opened at Rome, Turin, Genoa, Padua, Venice, Bologna, Modena, Varese, and Udine. He added that sixty-eight cremations had been completed in Germany, and eighteen in North America. He showed, too, how cremation as performed in Italy complied with all the exigencies of sentiment, of civilisation, of economy, and of hygiene.—*Gaz. Med. Lombardia*, March 11.

THE ADVANCEMENT OF MEDICINE BY RESEARCH.

THE meeting summoned by the Presidents of the Royal Colleges of Physicians and Surgeons, with the object of founding an Association for the Advancement of Medicine by Scientific Research, was held at the Royal College of Physicians on the 28th ult. The meeting was not, perhaps, a very numerous one; but, considering the position, eminence, and character of the persons present, it was unquestionably a very weighty and important one. Sir William Jenner presided, and was supported by, among other well-known members of the profession, Sir James Paget, Sir Wm. Gull, Dr. Paget of Cambridge, Dr. Acland of Oxford, Mr. Bowman, Dr. Burdon-Sanderson, Dr. Wilks, Sir Risdon Bennett, and Dr. W. Carpenter; and by the Master of the Rolls, the President of the Royal Society, Sir John Lubbock, Professor Tyndall, Mr. De la Rue, and other eminent laymen. Sir William Jenner, in opening the proceedings, stated that several meetings of the medical profession had been held for the purpose of deliberating on the best means of founding with success an association for research in medicine, and for the advancement of medicine by that research. After considerable deliberation it was determined to call a meeting of representative men, and not only of those engaged in the practice of medicine, but also of those who might be interested in science generally, and to ask them to co-operate, or at any rate to express their opinion as to the formation of the proposed association. There were a number of medical societies at which those who had conducted researches could attend and present them, but none which guided men in their researches in order to gain knowledge and aid health by research. It was not intended that the new society should be restricted to any single object, but that it should be founded on a very wide basis. For instance, the relations of sewer-gas in deteriorating human health, and rendering the body susceptible to disease, formed a wide field for investigation. To carry on researches of the kind much co-operation would be necessary. There would be no desire to evade or to go against the law. Two or three years ago a law regulating experiments on animals was passed, and it was not their desire to ask for a repeal of that law, or even at the present moment to ask for a modification of it. He believed the medical profession had as great a respect for the law as even the lawyers themselves. But whilst they did not seek for any repeal of the law, the association would watch most carefully its working, in order to see how far it attained its objects, and how far the machinery which was employed in putting it into force might exceed the purposes for which it was passed. The latter line of conduct seemed to be very necessary, as a recent trial had shown that very injurious delay might occur in making investigations and experiments that were absolutely necessary. This was a matter which was not only vital to justice, but which might have a very great effect upon the public mind. If the public came to hold the idea that there was a poison which no skill on the part of the chemist could discover, and that a victim might die without the incrimination of the murderer, the effect would be a very bad one. In the case he had referred to, before the necessary experiments could be gone through, certificates had to be obtained, and a great delay was necessarily caused before the gentlemen engaged in the case were allowed to experiment upon animals. The delay was, in fact, so serious that one gentleman in the case had determined to go to France in order that he might there make experiments upon animals without infringing the laws of the country. It was upon such occasions that the society would exercise its beneficial influence, and he thought this would be shown in the time to come. The proposed society could, on the one hand, bring its influence to bear to restrain those ardent pursuers of science who were inclined to disregard the susceptibilities of the public, and to temper their zeal by discretion and experience; and, on the other hand, it could enlighten the public, and so lessen the morbid sensibilities which have been aroused. He then proposed the first resolution, viz.:—
"That with the view of bringing the legitimate influence of the medical profession more effectively to bear on the

promotion of those exact researches in physiology, pathology, and therapeutics, which are essential to sound progress in the healing art, an association be formed, to be called "The Association for the Advancement of Medicine by Research."

This, in the unavoidable absence of the President of the Royal College of Surgeons, was seconded by the Senior Vice-President, Mr. Spencer Wells, and was supported by the Master of the Rolls, who wished "God speed" to those who engaged in research for the alleviation of suffering. The resolution was carried unanimously.

The second resolution—"That the Association consist of representative members of the medical profession, and of other persons desirous of promoting the above objects,"—was proposed by the President of the Royal Society, and seconded by Dr. Quain, and agreed to. Sir James Paget then moved the adoption of rules for the constitution of the Council of the Association, for its government and management, and providing that registered medical men desirous of promoting the objects of the Association may be admitted members on the nomination of an ordinary or corresponding member. He dwelt on the weight the utterances of the Association must have with politicians, and on its value as a central authority to guide and advise those who are desirous of undertaking researches, and to suggest lines and subjects of scientific inquiry. The motion was supported by Sir William Gull and Mr. De la Rue, and carried. Sir Risdon Bennett, Mr. Erichsen, and Sir John Lubbock proposed and recommended for acceptance the resolution—"That it shall be the principal duty of the Council to encourage original research, and to further the extension of scientific knowledge in the fields of inquiry specified in Rule I. That, with this object, the Council shall take note of, and seek to remove, any hindrances which may appear to them to be operating adversely to the progress of medical knowledge. That the working of the Act 39 and 40 Vic., cap. 77, shall engage the watchful attention of the Council, and may rightly become the ground of interposition on their part."

Some other formal resolutions, proposed and supported by Professor Tyndall, Sir Joseph Hooker, and other speakers, were carried; and the meeting separated with a hearty vote of thanks to the President.

IODOFORM IN OPHTHALMIA NEONATORUM.—Encouraged by the statements made at the Heidelberg Ophthalmological Congress, of the utility of iodoform ointment or powder in affections of the conjunctiva with profuse discharge, Dr. Lange, of the St. Petersburg Ophthalmic Institution, made trial of it in the treatment of ophthalmia neonatorum in six infants, employing at first no other means except water for cleansing the eyes, in order to be sure of the results obtained. These results were most unfavourable, so that other measures had to be adopted. Iodoform, in fact, is not only an application of no utility, but one attended with danger. This chiefly arises from the extraordinarily rapid growth of granulations, which speedily fill the conjunctival sac, and exert most injurious pressure on the cornea.—*Petersb. Med. Woch.*, March 18.

ABUSE OF PESSARIES AND THE UTERINE SOUND.—Dr. Funk, of the Vienna General Hospital, condemns severely some of the gynecological procedures common in England, but more especially practised in the United States. (1.) *Pessaries.*—He censures as bad practice the universal and generally indiscriminate use of pessaries for all varieties and conditions of uterine versions and flexions. In these disorders he says—1. In the great majority of cases, the abnormality, if it be really one, cannot be corrected by the support of a pessary of any kind. 2. If the pessary be at all effective, it must cause so much pain that it cannot be worn with any degree of comfort. 3. When correcting the position of the uterus, it acts as a ligature around the cervix, impeding circulation and nutritive processes generally. 4. In a number of cases the site of a pessary is the starting-point of carcinoma. (2.) *The Sound.*—Dr. Funk objects to the general use of the sound as a means of diagnosis, as also to the too frequent use of the speculum. He believes that abdominal palpation, with digital examination, sufficiently varied, is amply sufficient for the diagnosis of most uterine and vaginal disorders. The introduction of the sound he regards as invariably injurious, and in private practice he rarely uses it.—*Philadelphia Med. News*, March 11.

FROM ABROAD.

CARUNCLE OF THE FEMALE URETHRA.

IN a clinical lecture delivered by Prof. Goodell at the University of Pennsylvania (*Philadelphia Medical Times*, December 17), he observed, in the case of a woman presenting herself with scalding of the urine—which, having existed for months, had now become almost unbearable, especially as the last few drops passed away,—that as in most lesions of the reproductive apparatus vesical disturbance takes place, a urethral caruncle, from which they arose in this case, is very likely to be overlooked. Reflex symptoms often lead astray, and women's natural delicacy opposes a visual inspection.

"What then can you do? You can do it without consulting her. You can ask for a vaginal examination, to which most women will submit, and while you are exploring the uterus with the index-finger, you may with the thumb press on the meatus, and notice whether the contact elicits pain then, as you introduce or remove the speculum, with your eye glance at the urethra. It has always been my experience that whenever you can confidently say to your patient, 'I have discovered the cause of your trouble; here it is'—and then by pressing on the caruncle convince her that your statement is correct,—she will not refuse any future needful exposure of her person. I make it an inflexible rule, when a woman complains of pain in passing her water, to feel for a caruncle. You must not forget in all these cases to go through with the formality of covering the patient with a sheet; for just as you gild and sugar-coat what is bitter to the taste, so you must gild and sugar-coat what is bitter to the mind.

"As I separate her thighs and expose the meatus, those of you who are near can see at the upper margin of the meatus a small crimson and wart-like body. It is a vascular excrescence from the urethra, and looks like a small Antwerp raspberry. Notice its vascularity: it bleeds on the slightest touch. Observe how sensitive it is: although profoundly etherised, the woman winces and draws up her limbs. So exquisitely alert are the little nervelets distributed over its surface that were she not under the influence of ether she would writhe with pain under even the gentlest touch. The vulva and outlying organs of a woman are, as you have often observed in this amphitheatre, the last to yield to the influence of an anæsthetic. Sensation is here so acute that it will remain long after other peripheral nerves have become benumbed.

"This little growth seems insignificant, but it has given this woman an immense amount of suffering. Not only does she have pain during micturition, but even in walking she is compelled to straddle her legs to avoid irritation. Some of the more aggravated cases that have come to my notice have presented a train of symptoms that could hardly be supposed to be directly caused by such a little growth. There may be constant heat and throbbing of the external organs of generation, with more or less leucorrhœa, and the linen may be often stained with blood and the urine streaked with it. Cohabitation becomes painful, producing the condition known as dyspareunia. It is at the first entrance of the male organ that there is most pain; and this is so intolerable that many women will not permit their husbands to approach them. This is of course a source of domestic unhappiness. By brooding over their sufferings and their incomplete conjugal relations, the mind becomes morbid, and in some instances women have been driven to insanity or even suicide. These torturing growths are more common to the married than to the single, and occur usually to women who have passed the prime of life. I am inclined to think that they owe their existence to congestion of the urethral plexus of veins, such, for instance, as is induced by pressure of the gravid or displaced womb, or by that of an over-distended bladder or of a loaded rectum. In fact, pretty much the same causes are at work which tend to produce piles. They consist of hypertrophied papillæ covered with a layer of tessellated epithelium, and are largely supplied with nerves and bloodvessels.

"Now comes the final question: What can we do to effect a cure? When there is a distinct pedicle, one snip of the scissors is all that is needed; but when, as in this case,

they are attached by a broad base, difficulties arise which demand ether and assistance. The patient lies back, her knees being supported by these gentlemen, who also place their fingers on each side of the meatus and stretch it open. Catching the caruncle with a tenaculum, I raise it up and dissect it out, taking with it some of the sound flesh. The wound bleeds freely. In order to check the hæmorrhage and to insure the complete destruction of the growth, we shall now cauterise it. I shall cauterise it as you would have to do in the country; and shall not, therefore, employ on this occasion Paquelin's thermo-cautery, which, although it is by far the best and most convenient instrument for this purpose, is so expensive that few of you will be able to command it. You can therefore use the iron handle of a broken file, heated to redness, as you now see me heat it—taking care, however, that your eyes are not exposed to any bright flame as the instrument is being heated, for the light may dazzle you, and a large black spot will follow and obscure your vision, no matter where you look. The pale glare of an alcohol-lamp is therefore the best for the purpose. Nitric acid is not so efficient a caustic as the hot iron. Formerly I always employed it, searing the raw surface of the wound with the frayed end of a match dipped in the fuming acid. It does not always, however, stay the hæmorrhage, which is sometimes quite free. . . . The after-treatment will consist in the application, twice a week, of the undiluted commercial carbolic acid until the raw surface has skinned over. If you follow the plan of treatment that I have laid down, you will rarely have to repeat the operation. Although I have often burnt these caruncles, there has never followed any contraction of the urethra: mucous membrane does not undergo the cicatricial contraction that skin does.

"Gentlemen, once in a while, in treating a woman for another disease, you will come across a caruncle, and you may be tempted to remove it; but let well enough alone, and do not touch it unless you know it to be one of the painful kind. The suffering caused by them bears no relation whatever to their size, and, unless the symptoms are aggravated, it is best not to touch them."

THE URINE IN SCORBUS.—In a paper in the *Wien. Med. Woch.* (1881, No. 52), Dr. Kretschy states that Prof. Duckek, of Vienna, during the last nine years has had under his care sixty-four cases of scorbutus, and a symptom has been noted in them which may contribute to the better knowledge of the disease, and at all events is deserving of more close attention than it has received, especially in St. Petersburg, where scorbutus is no uncommon disease in the hospitals. It is the dark colour of the urine, unaccompanied by diminution in its quantity, and with an absence of fever. As improvement takes place, the urine becomes clearer again. On examination, the urine exhibits an acid reaction. There is present neither albumen nor colouring matter of the blood, but there is an increased amount of urea. Dr. Kretschy infers that scorbutus commences with an increased destruction of blood corpuscles, the appearances persisting so long as the process is on the increase.—*Petersburg. Med. Woch.*, March 4.

THE MEDICAL "PATENTE" LAW IN FRANCE.—Every practitioner in France has to pay an annual tax or *patente* for the right of practising his profession, and this tax only entitles him to practise in the division of the country in which it is paid. This falls hard upon numerous Paris practitioners who in the bathing season resort to the various bathing-places. Here they must pay an additional tax as if they had not already paid one in Paris. Dr. Constantin James, the well-known writer on baths, has just made known in the papers a circumstance which shows the rigorous way in which this tax is enforced. Residing near Caen, but with no intention of practising there, he was urgently summoned to the wife of a friend in the neighbourhood, who seemed to be dying from an attack of nasal hæmorrhage. This he succeeded in arresting, and was then called upon by the fiscal officer of the district to pay for his *patente*, although he had only seen his patient as a friend on an emergency. "If such cases as these recur, doctors who are on their travels far away from their habitual residence will no more venture to give succour in a case of urgency than the common people dare to cut the rope from which a man is hanging, for fear of compromising themselves."—*Lyon Méd.*, March 26.

REVIEWS.

Experimental Chemistry for Junior Students. By J. EMERSON REYNOLDS, M.D., F.R.S. Part II. Non-Metals. London: Longmans, Green, and Co. 1882.

This little volume is the second of a series, consisting of a collection of examples (Nos. 81 to 349), all of which can be performed in any laboratory, and without costly or complex apparatus. They will be found to illustrate every property, mode of preparation, reaction, test, and manufacturing process with which the student needs to become acquainted. The knowledge thus gained would be real and solid, in strong contrast to the book knowledge—if knowledge it can be called—the cram, too generally trusted to in preparation for examinations.

For laboratory practice and the schools of chemistry opened in so many industrial centres in connexion with the South Kensington Department of Science and Art, we can conceive of no better guide-book or course of instruction than these unpretending volumes of Dr. Reynolds's, for which he is entitled to the hearty thanks of every teacher.

Text-book of Modern Midwifery. By RODNEY GLISAN, M.D., Emeritus Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Willamette University, and late President of the Oregon State Medical Society. With 130 illustrations. Philadelphia: Presley Blakiston. 1881. Pp. 639.

THE reason which the author gives as that which has induced him to write this book, is that he thinks that there is a demand for a work which shall properly represent the peculiarities of American obstetric practice: The American medical schools having been latterly dependent for their obstetric text-books upon reprints of English and translations of French and German works.

We have read the book with much pleasure, and regard it as a valuable addition to obstetric literature. Its great merit seems to us to be this: that it is the work of a man who thinks for himself. Dr. Glisan not only shows a habit of independent judgment, but an amount of common sense which makes his opinions worth careful attention. He makes no pretension to exhaustive bibliographical research, nor to novelty in pathology or treatment. Hence his book will not be so useful as a text-book as it will be of interest to specialists and of service to practitioners. The latter will find it a clear, and on the whole a safe, guide in the difficulties of practice. Although, as we have said, the author appears to have read well rather than widely, yet he has digested and sifted what he has taken in.

The introductory chapters, which deal with the anatomy and physiology of the female pelvis and reproductive organs, and of the ovum, are simply compiled from standard authors, and contain nothing original: they therefore need not detain us. We think we shall do better to go at once to the parts of the book which deal with actual practice—for it is in them that Dr. Glisan is seen at his best,—and comment upon a few points which strike us.

In describing the treatment of retroversion of the gravid uterus, we find given a number of plans for replacing the retroverted organ, but only a passing mention of the fact that after an evacuation of the bladder and rectum the womb "sometimes" straightens itself. We are inclined to think that the best line of practice is that advocated long ago by Busch, and more recently recommended by Dr. Braxton Hicks—viz., keeping the patient in bed for a day or two, and the bladder empty, before attempting reduction. If this be done it will generally be found that the uterus has righted itself. Dr. Glisan seems not to have let the uterus, in his cases, have the chance of doing this: we hope he will.

In speaking of the treatment of abortion we are somewhat surprised to find Dr. Glisan recommending, and taking the trouble to minutely describe, the process of plugging the *vagina*. We should have thought that a teacher of midwifery would have recognised that, when it is necessary to check uterine hæmorrhage by interposing a mechanical obstacle to the escape of blood, the cervix uteri is the part which should be plugged; especially when, as in the case under

consideration, the dilatation of the cervical canal which follows the pressure of a plug is itself a desirable thing to effect. So comparatively useless a measure as plugging the vagina seems to us only justified where circumstances, such as the lack of assistance, or of the needful instruments, make it impossible to get anything into the cervix. In this work we are told, "if the discharge be dangerously profuse," to "insert a tampon or plug into the vagina, saturated or not with some astringent or hæmostatic" (page 261). We cannot ourselves see how the application of an astringent or hæmostatic to the vagina is to check hæmorrhage from the uterus. The author, we think with wisdom, objects to the practice of pulling down and manually detaching and removing the ovum as a routine measure. In this connexion we notice the following paragraph, which seems to us, if it be correct, to show a very rotten state of things across the Atlantic:—"It would seem as though the law is almost powerless to prevent criminal abortion. Very few even of the most notorious abortionists are ever properly punished for their wholesale slaughter of infantile life, and in not a few instances where they have been duly convicted and sent to the penitentiary their sentences have been condoned by political influence, and they have subsequently plied their art more recklessly than ever" (page 255).

The description of the methods of decapitation makes us speculate how many times the author has performed this operation. Scissors, Ramsbotham's hook, Braun's decollator, the écraseur, and a strong piece of whipcord, are all mentioned: Dr. Glisan expressing no preference. We cannot think that anyone who had ever used Ramsbotham's hook, or even Braun's decollator, would resort to any other method, excepting, of course, in the case of the necessary instrument not being at hand. It seems to us hardly an argument against Ramsbotham's instrument, that it is dangerous in unskilful hands. So is a scalpel; but surgeons do not on that account recommend blunt knives.

We are surprised to find no mention made, in the account given of inversion of the uterus, of the method of reduction by the continuous elastic pressure of cup-shaped repositors, which has been used with so much success by Dr. Aveling and others, that the opinion is gaining ground that in no case is reduction impossible.

In the chapter on forceps, Dr. Glisan is not so definite as we should have liked. The author puts forward this opinion: "An average of about once in twenty cases seems to me to be the happy medium." Surely he would not have the practitioner guide his practice by a numerical rule such as this. He quotes, we presume because he approves them, the opinions of Dr. Johnston, of the Rotunda Hospital, Dublin, upon the "timely" use of forceps. Can he be aware that the result of practice based on these views was to double the maternal, and slightly increase foetal, mortality?

Speaking generally, we may say that the excellence of this book is in the clearness with which the writer describes the duty of the accoucheur in the ordinary routine of practice and the more common deviations from the normal conditions, and in the judiciousness of the advice he gives. In the rarer emergencies—those which occur so seldom in the practice of one individual that it is impossible for anyone to give an adequate account of them from personal experience alone—the author does not add to our knowledge, for he simply quotes well-known authors, without attempting to throw fresh light on the subject. His comments, however, are original and instructive. The weakest point in the book is the pathology. The chapters which deal with ground common to the general physician and the obstetrician (such as puerperal convulsions and puerperal fever) are very poor, the author apparently not having kept himself so fully abreast of general pathology as he has done with regard to his own speciality.

The revision of the proof-sheets appears to have been carelessly done, for there are a good many errors in spelling and grammar which a careful reader would have corrected—e.g., "asafœtida" (page 266), "Frederickshall" (page 233), "Sodii bicarb." (page 235), "chlorodine" (page 260), "Syrupus simplicis, Aqua anise" (page 265), "Shroeder" (page 262). We note also that Dr. Glisan persistently writes "hemorrhage," while in "anæmia" and "septicæmia" he retains the diphthong—a somewhat arbitrary application of a reform in spelling.

The style on the whole is plain and definite. Occasionally

the author indulges in flights of rhetoric, of one of which we cannot deprive our readers:—"The spermatozoa . . . bear a close resemblance in shape to tadpoles, and to those ethereal wanderers, the comets, that at long intervals of time show themselves to our astonished gaze. . . . Although insignificant in size, they are capable of more good or evil, as the case may be, to the human race than all the comets that have ever flashed through universal space. They are the agents of great happiness or of untold misery in myriads of homes. Of happiness, when guided in their mysterious errands by conjugal love; of misery, when allowed to range the sacred precincts of virginity in a wicked and unlawful manner."

We will not spoil this by any anti-climax of our own.

Fat and Blood, and How to Make them. By S. WEIR MITCHELL, M.D., Fellow of the Philadelphia College of Physicians, etc.; author of a "Treatise on Injuries of the Nerves," etc. First English, from the second American edition. London: J. B. Lippincott and Co. 1878. Pp. 109.

WE notice this book because at the time of its first publication its circulation was confined to America. Since then the method of treatment described in it, by rest, seclusion, massage, and electricity, has been brought under the notice of the profession in England by Dr. W. S. Playfair. Those of our readers who are interested in it will be glad to know that in this work, which is now published in England, they will find that method of treatment fully expounded by the able physician to whose ingenuity the profession is indebted for its invention.

Descriptive Catalogue of the Specimens in University College Museum. By MARCUS BECK, M.S., and S. G. SHATTOCK, F.R.C.S. Part I. Pp. 288. 1881.

THIS part includes injuries and diseases of bones and muscles; of the alimentary tract; of arteries, veins, lymphatics; and of nerves. The specimens number 1355, and there is a short, clear description of each one, together with a brief clinical record of the case when such is necessary. We congratulate the editors on the successful accomplishment of this portion of their work. It has obviously involved great labour; but it will prove invaluable to those who may wish to know what the Museum contains.

It were to be wished that a similar catalogue of all the London museums, as full of detail and as facile of reference as the one before us, were accessible to students. There are at present many specimens of great interest lost to the profession for the want of such a guide as this.

GENERAL CORRESPONDENCE.

PHOSPHORUS-POISONING.

LETTER FROM MR. JOSEPH POLLARD.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the report of the case of phosphorus-poisoning under Dr. Cockle, reported in your last week's paper, I apologise for inadvertently omitting the following facts, which may be interesting to your readers:—*a.* Blood fluid and dark-coloured. *β.* I examined heart-fibres under the microscope, and found the striæ obliterated, the interspaces where they ought to be seen being filled with minute fat globules. Fibres of the pectoralis major in a somewhat similar condition; but the striæ were more persistent, and the oil globules seemed first to lie near the striæ. *γ.* The amount taken was 4½ gr., as far as an analysis of similar samples can be taken as a criterion. Apologising for troubling you,

I am, &c., JOSEPH POLLARD
Royal Free Hospital, March 28. (pro Dr. Cockle).

IODINE IN ACUTE MALARIA.—Dr. Morison reports the result of using iodine for acute malaria at the University of Maryland Dispensary. Fifteen minims were given three times a day in a mixture largely diluted. It was given in 250 cases, of whom 100 were heard from a second, third, or more times. Of these, eighty-four are on record as cured, and sixteen as not cured, by iodine or by the cinchonidia mixture of the Dispensary.—*New York Med. Record*, March 4.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

March 29.

VIVISECTION—HOSPITAL ELECTIONS—LADIES' CHARITY AND LYING-IN HOSPITAL.

At the meeting of the "Literary and Philosophical Society," held on March 20, Dr. Pollard read an able and exhaustive paper on "Vivisection." He vindicated the utility of experiments on animals, and defended "vivisection" from the charges of cruelty and immorality that have been brought against them. He believed vivisection should be licensed (to prevent abuse), but the power of granting such licences should be vested in a board, the members of which could *intelligently* consider the applications. In the discussion which followed not a single voice was raised to advocate the abolition of "vivisection," although the members present were more "literary" than "philosophical," and only a very few were medical men.

The ordinary meeting of the Liverpool Medical Institution was held on March 23. The entire evening was devoted to a discussion on Hospital Elections. The following resolutions were moved by Dr. Macfie Campbell, and seconded by Dr. Pollard:—

1. "That the present mode of election of honorary medical officers to the Liverpool hospitals is unsatisfactory and liable to abuse."

2. "That an alteration on the following lines is advisable:—(a) The electoral body shall consist of the committee of the hospital, the medical board of the hospital, and one hundred trustees, who shall be elected at the annual meeting for a period of five years; (b) this electoral body shall have no other powers or functions; (c) personal canvassing and advertisement in the public papers shall be prohibited; (d) the candidate shall be permitted to send testimonials, or a statement of his claims; (e) the election shall be by ballot."

After an animated debate a committee of twenty members was appointed to report upon the subject to a future meeting.

A special and adjourned meeting of the subscribers of the Ladies' Charity and Lying-in Hospital was held yesterday, in the Town Hall. The Committee of the Hospital determined to close it as far as maternity patients were concerned, and convert it almost entirely into a hospital for diseases of women. The subscribers, generally, were not of the same opinion as the Committee, and at the annual meeting the question was referred to delegates who were to confer with the governing bodies. These delegates have now reported to the subscribers that they believe a lying-in hospital to be necessary in Liverpool, and that such an institution can now be conducted successfully, owing to our increased knowledge of the cause and mode of prevention of child-bed fever. They cited Professor Simpson and the experience of the Liverpool Workhouse in favour of their statements. The report was carried by twenty-three to thirteen votes, upon which the Committee resigned. A new Committee will now be appointed, and arrangements will be made for carrying out the intentions of the majority.

A LUNATIC ASYLUM ON FIRE.—A fire in the eastern wing of the King's County Asylum last week resulted in the destruction of the building, and the death of two of the inmates. There were 333 inmates of this wing, and 175 in the part where the fire broke out. The alarm was given early in the morning, when the patients were at breakfast. Strange to say, no panic was excited amongst the patients, and the wards were cleared in a very short time. One of the patients rushed into a burning ward and rescued a bed-ridden patient. One of the patients who was burned was bedridden and speechless, and in the confusion was overlooked by the attendants, and the other person killed was very excitable, and a sufferer from epilepsy. Dr. Shaw thinks that the fire might have been subdued had the supervisors done—as he had repeatedly requested them to do—furnish standpipe and hose on each floor of the building for use in case of fire.—*New York Med. Record*, March 4.

REPORTS OF SOCIETIES.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, MARCH 17.

Dr. TRIPE, President, in the Chair.

At a preliminary discussion upon the effectual control of infectious diseases,

The PRESIDENT reminded the Society of the resolution which had been agreed to in view of legislation which it was hoped to effect this session. The Society considers that it should be made obligatory upon the friends of the infectious sick to report such cases to the proper authority, and the legal obligation of the medical attendant to give a written statement to the occupier of the house of the nature of the disease, for which a fee of 2s. 6d. shall be paid.

Dr. STEVENSON remarked that the Local Authority of Paddington have resolved to pay a fee of 3s. 6d. to the medical attendant for such information.

Dr. DUDFIELD moved that copies of the resolutions respecting the notification of infectious diseases be forwarded to those members of Parliament who are interested in the proposed Bill on this subject.

Dr. DUDFIELD commented upon a modification introduced into the Registrar-General's tables, and inquired whether such modification was approved. He complained that such diseases as diabetes, Bright's disease, and albuminuria had been struck out, and all such diseases were classed under the one head "urinary diseases." Some useful additions had been made. He thought it desirable that the Secretary should ascertain whether these alterations were permanent and to be accepted by the medical officers of health.

This was referred to the Council for consideration and report.

Dr. Percival, Medical Officer of Health to the Northampton Combined Sanitary District, was elected an Extra-Metropolitan Member.

The PRESIDENT read a short paper "On the Necessity for an Alteration of the Law as regards Revaccination," and gave some statistics. We give a summary of the paper:—Certain facts have come to my knowledge during the late epidemic of small-pox, showing that the age at present fixed, below which payment cannot be made by the guardians to district vaccinators for revaccination is too high. In the memorandum issued from the Local Government Board on revaccination, dated October 17, 1876, it is stated that "in consequence of the large amount of imperfect vaccination until recent years, all persons who have been vaccinated in infancy should, as they approach adult life, undergo revaccination. Generally speaking, the best time for revaccination is from fifteen to eighteen years of age, but when an epidemic of small-pox is prevailing, even the age of fifteen should not be waited for, especially if the marks of previous vaccination are unsatisfactory." The vaccination officer is also directed that he should make it well known in infected localities that the public vaccinator is at liberty to revaccinate all persons not under twelve years of age who have not been successfully revaccinated. But unless persons are resident in infected localities, the public vaccinator is not paid for the revaccination of any child under fourteen years of age. I now propose relating the results of my examination, in 1881, of a large number of children attending one of the schools supported by voluntary contributions in this district. At the request of the managers I examined 197 children under twelve years of age, when I found that twenty-nine had bad marks, and seven no marks whatever, the whole of the latter having not been vaccinated, making a total of thirty-six, or nearly 20 per cent., who were unprotected, or nearly so, against an attack of small-pox. The marks of those who were under seven years of age were much more visible than amongst the children above that age. I was subsequently informed that the whole of the thirty-six children were vaccinated or revaccinated by a private practitioner, and that all took. I may say, in regard to this, that I do not attach a very great deal of importance to this statement, as the local manifestations from revaccination are held by the best authorities on the subject to bear no specific relation to the

susceptibility of a given person to small-pox. Under these circumstances I think I have made out a good case for the reduction of the age at which guardians may be empowered to pay district vaccinators for the revaccination of children whose vaccination marks are such as to show that they are not properly protected against an attack of small-pox. I would therefore propose that the age be lowered to twelve as regards all children, and to ten amongst those who are living in an infected place.

The following tables constitute a summary of the leading facts in Dr. Tripe's paper:—

Small-pox Cases in Hackney, 1880-81.

VACCINATED PERSONS.

Ages	0 to 1 to 5 to 10 to 15 to 25 to 35 to 45 and upwards.							Totals.
	1.	5.	10.	15.	25.	35.	45.	
Totals	5	64	117	172	364	207	95	1,075
Small-pox cases	0.5	6.0	10.9	16.0	33.9	19.2	8.8	100
Population ...	6.5	12.9	11.1	10.0	20.4	15.8	11.5	100

UNVACCINATED PERSONS.

Ages... ..	0 to 1 to 5 to 10 to 15 to 25 and upwards.						Totals.
	1.	5.	10.	15.	25.	upwards.	
Totals	40	39	33	20	23	5	160
Small-pox cases	25.0	24.4	20.6	12.5	14.4	3.1	100
Population ...	49.4	12.9	11.1	10.0	20.4	...	100

Vaccination unknown 71

In the debate which followed the reading of this paper,

Mr. CORNER remarked that there must be some defect in the method of vaccination as carried out by the public vaccinator, as so many vaccinated children develop small-pox.

Mr. MURPHY advised that where small-pox prevails, revaccination should be regularly enforced by compulsion.

Mr. SHIRLEY MURPHY then read a paper "On the Unsatisfactory Condition of Legislation concerning Metropolitan Bakehouses." The following is an abstract:—The Bakehouse Regulation Act, 1863, was repealed by the Factory and Workshop Act, 1878, which came into operation on January 1, 1879. The sections in the former Act, Nos. 4 and 5, which relate to the proper cleaning and limewhiting of the bakehouse, to its ventilation, and to the keeping of it free from effluvia arising from any drain, privy, etc., and to the prevention under limitation of the use for sleeping purposes of a room on the same floor as the bakehouse, are embodied in the Factory and Workshop Act. The sanitary authority has now no more concern with bakehouses than with any ordinary dwelling-house. Section 4 of the recent Act provides that a factory inspector shall give notice to the sanitary authority of any "nuisance" which he may find to exist in the bakehouse, and it then becomes the duty of the sanitary authority to take the necessary proceedings for its abatement; but it will be seen at once that although the sanitary authority may still be used for the purpose of remedying an evil which already exists, their influence in preventing the occurrence of any nuisance—an influence which alone can come from constant inspections—has ceased. Frequent inspection is required to impress on those engaged, either in bakehouses, slaughter-houses, or cowsheds, a higher standard of decency and cleanliness. So far as my own district is concerned, I cannot find evidence of more than 37 per cent. of the bakehouses having been visited by the factory inspectors since the last Act came into force. The inspection of bakehouses cannot be so well carried out by a central authority with the very few inspectors at their command as by the local authorities under the supervision of the medical officer of health.

Mr. WYNTER BLYTH said that he should never be surprised to hear of some epidemic being traced to the slovenly method adopted of baking bread, and the development of butyric acid from defective and uncleanly methods of making it.

Dr. BRISTOWE reminded the Society that the factory inspectors do not visit bakehouses as a rule.

Dr. TRIPE said that he had no difficulty in Hackney. His

inspectors visited the bakehouse on sanitary grounds alone, treating it as a dwelling-house.

Mr. LOVETT inquired if the local sanitary authority would cease to have any jurisdiction over bakehouses, unless it were first informed by the Chief Inspector of Factories of any contravention of the Factory and Workshop Act, 1878 (sections 3 and 4). He said that by the repealing of the Bakehouses Regulation Act, 26 and 27 Vic., ch. 40, their inspection has been taken out of the hands of the local authorities, but by the 6th Schedule of the Factory and Workshop Act, 1878, the words following in the 2nd subsection of the 19th section of the Public Health Act (29 and 30 Vic., ch. 90)—"Not already under the operation of any general act for the legislation of factories or bakehouses,"—have been repealed, and the effect is to place all factories, workshops, and places under the supervision of the local sanitary authorities, to prevent any injury to the health of the occupiers of the same, and the section in that Act now reads as follows:—"Any factory, workshop, or workplace not kept in a cleanly, or not ventilated in such a manner as to render harmless, as far as practicable, any gases, vapours, dust, or other impurities generated in the course of the work carried on therein, that are a nuisance or injurious or dangerous to health, or so overcrowded while work is carried on as to be dangerous or prejudicial to the health of the employed therein." As he read the Act, the sanitary authorities can act in all cases where operatives or employes are engaged in dusty and ill-ventilated rooms. Mr. Redgrave says factory inspectors should be the sole authority, because occupiers of factories should have to deal with as few authorities as possible. It was therefore enacted by Section 101, with reference to cleanliness (Section 4), that Section 91 of the Public Health Act, 1875, should not apply to factories or workshops within the meaning of the Act. Hence local authorities are not invested with any authority as to enforcing cleanliness in bakehouses. But the Act of 1875 does not apply to the metropolis. The enactments in the Factory Act were considered by Sir R. Cross and Mr. Selater-Booth, and by the draughtsmen of the clauses, and he (Mr. Lovett) could only bow to their authority in the scope of the enactments in question.

Mr. CORNER made some remarks upon the prevalence of whooping-cough, and attributed it to the loose way in which children are allowed to mix together in public. He had had forty-seven deaths in six weeks out of a population of 60,000. The laws against the spread of infectious diseases were constantly being broken in respect of whooping-cough. He particularly advised that children should not be allowed to visit at hospitals when suffering from whooping-cough.

Mr. WYNTER BLYTH would class measles, influenza, and whooping-cough together as mild cases of illness, and thought it cruel and unnecessary to place them rigidly in quarantine.

Drs. TRIPE and BRISTOWE approved of steps being taken to advise hospitals not to receive such cases.

BORAX AS A GERMICIDE.—The fact that borax is a powerful germicide, and yet is without poisonous properties, is clean, odourless, and convenient, has not been so widely recognised as it should be, according to the *Phil. Med. Times*. Surgeons are strongly recommended to use it more extensively as a substitute for carbolic spray or the now popular iodoform. It has, we understand, been given on quite an extensive scale in some of the New York hospitals with very fair results, but none that were at all extraordinary.—*New York Med. Record*, March 11.

AN ENTERPRISING VACCINATOR.—A pleasant-looking, middle-aged man made his appearance recently in Hunterdon County, New Jersey. He said he was a physician sent by the Board of Health of Jersey City to vaccinate the people of the county. His affable manners and apparent air of authority convinced most of his hearers that he told the truth. He said that the Board had ordered him to charge a dollar for every adult, and fifty cents for every child vaccinated, in order to defray expenses, but he reduced the prices when the parties were too poor to pay the sums asked, and even vaccinated some for nothing. He went from house to house in a buggy, and returned to the large towns at night. The fact that he was a fraud, and that the Board had never sent out any physician, did not become known until the man had left the county, having collected a large sum of money.—*Medical and Surgical Reporter*, February 25.

OBITUARY.

THE LATE GEORGE BUDD, M.D., F.R.S.

WE have already referred to the death of this eminent physician, and we now fulfil our promise to give a more detailed account of his distinguished career. The son of a general practitioner at North Tawton (a village well known to the profession by the prominent position which it occupies in Dr. William Budd's masterly treatise on Typhoid Fever), George Budd was the third son in a family of nine sons and one daughter. Of the sons no fewer than seven adopted medicine as their profession, and five, who were educated at Cambridge, all came out as wranglers. The subject of our notice, after receiving a private education in his native village, went to Caius College, Cambridge, where, in 1831, he graduated as third wrangler, and was soon made a Fellow of his College. He then proceeded to Paris, and spent there some months in the study of practical medicine and pathology. After his return from Paris he came to London, and was a diligent student in the wards of the Middlesex Hospital. His first public appointment was that of Physician to the *Dreadnought* Hospital, where he investigated with characteristic zeal and ability the numerous cases of liver-disease occurring in sailors returning from tropical climates that came under his observation, and where he laid the foundation for the extensive and accurate knowledge of that class of diseases, of which he made such good use in his classical work on the "Diseases of the Liver."

In 1840, Dr. Budd resigned his appointment at the *Dreadnought* on being elected to succeed Dr. (now Sir) Thomas Watson as Professor of Medicine in King's College. At the same time he and Dr. Todd were appointed Physicians to the newly established King's College Hospital. Many of our readers, familiar as they must be with Sir Thomas Watson's published lectures, will remember the generous and graceful terms in which the retiring Professor referred to his successor. Speaking of Dr. Budd he said: "I know that gentleman well; I know—indeed the world knows—his talents. He was highly distinguished in the Senate House at Cambridge. He has since devoted, and will continue to devote, the powers of a very strong intellect to the investigation of disease. Dr. Budd is one of the most strenuous cultivators of our science that I am acquainted with; and I am confident, without any affectation of modesty, that he will soon give a much better course of lectures than you have heard from me."

In the "epilogue" to the last edition of his Lectures, published in 1871, Sir Thomas Watson, again referring to Dr. Budd, says:—"My prophecy respecting my successor was amply fulfilled, and he also—too soon for science and for the public—has retired from the toils and responsibilities of medical practice."

For a period of twenty-three years Dr. Budd continued to work zealously and with great success as a lecturer and clinical teacher. Many of his pupils who have since obtained distinction and success in various departments of their profession gratefully acknowledge their obligation to him, not only for his admirable method of teaching, but also for infusing into them some portion of that enthusiasm in the pursuit of knowledge by which he was himself so conspicuously inspired.

In the spring of 1863 Dr. Budd's increasing practice compelled him to resign his appointments at King's College, when he was elected an Honorary Fellow of the College; and on that occasion his old pupils presented him with a very handsome testimonial. An account of this presentation will be found in our own pages (*Medical Times and Gazette*, May 30, 1863, page 577). Dr. Lavies's eloquent speech in presenting the testimonial expresses so well and with so much feeling the sentiments of all Dr. Budd's pupils, that we cannot do better than reproduce it here. Dr. Lavies, in presenting the gift, said that "the meeting was assembled to tell Dr. Budd some of the thoughts which pressed on them when, after a long and patient career as Professor of the Principles of Medicine in the College and of its practice in the Hospital, he was about to seek in partial retirement the rest to which he was so justly entitled. Nearly a quarter of a century had passed since he accepted the chair, and during that time hundreds of men had listened to his lectures and hospital teaching, and hundreds had

passed into practice in various parts of the world. What they thought of him was eloquently told by the offering made that day, and expressed individually by the numerous letters received from various quarters, and which would form part of the testimonial. The meeting had to think of Dr. Budd in four characters—Lecturer, Hospital Teacher, Consulting Practitioner, and Friend. Dr. Watson had predicted the success of his lectures, and all must admit that it had been a real pleasure to enter his class. His agreeable manner, eloquence, and earnestness, would be remembered by all. In the hospital he was always most attentive to the students, taking a deep interest in all who were willing to learn, while his own acumen and discernment, and his excellent clinical lectures, were the admiration of all. They could never meet Dr. Budd at the bedside without pleasure and instruction to themselves, and advantage to their patients. As a friend, all would own that their relation to him had been softened and beautified by his kind and conciliatory manner; a friendly word and cheerful smile for all. An attentive ear for every trouble, affectionate and paternal advice whenever it was sought, he was one well entitled to be called 'the student's friend.' And it was the same with his relations outside those walls; as no word of unkindness, still less of malice, ever escaped his lips, so were such words never directed against him. He had not a single enemy; loving his fellow-men, he was beloved by all."

Four years only after Dr. Budd's resignation of his public appointments, he became alarmed, in 1867, by the discovery that he had some degree of glycosuria; and he at once left London, and determined to give up practice. In the spring of 1868 he went with Mrs. Budd to the Continent; spent the following winter in Italy, and did not return until the autumn of 1869. This continental tour was a source of great delight and interest to him. After his return he took a house near his brother, Dr. Richard Budd, of Barnstaple, and led the life of a country gentleman. For some years he enjoyed the sport of fox-hunting, and to the last he took great interest and delight in his garden and his fruit-growing hot-houses. From time to time he suffered much from a painful abdominal affection, the result, as he believed, of a former attack of dysentery. He gradually became much emaciated, and finally, as a result of a chill, he succumbed in a few days to an attack of pneumonia shortly after completing his seventy-fourth year.

Dr. Budd was very early elected a Fellow of the Royal Society, and about two years before his death he was elected an Honorary Fellow of his College (Caius) at the same time with Sir George Burrows, the Bishop of Carlisle, and Mr. Justice Baggallay. This proof that during his retirement his distinguished university and professional career had not been forgotten, afforded him much gratification.

In concluding this brief notice we have only to add that few men in our profession have afforded a happier example than our lamented friend, Dr. George Budd, of the rare combination of a powerful and highly trained intellect with those high moral qualities—the strictest integrity and a scrupulous regard for the feelings and interests of others—which endear their happy possessors to all who have the privilege to be brought into contact with them.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 23:—

Adcock, Harold, Middleton, Northamptonshire.
Flaxman, Americ Edwin, New Court, Temple.
Nicholson, John Williams, Alsten, Cheltenham.
Nutt, William Anthony, Plymouth.
Stratten, John Lionel, Kidderminster.
Wilson, Thomas, Maidstone.

The following gentleman also on the same day passed the Primary Professional Examination:—

Corner, Matthew Cursham, London Hospital.

BIRTHS.

HILL.—On March 25, at 93, Earl's Court-road, W., the wife of T. Wood Hill, L.R.C.P., of a son.

KILNER.—On March 25, at 104, Ladbroke-grove-road, North Kensington W., the wife of Walter J. Kilner, B.A., M.B., of a son.

LAMB.—On March 24, at 4¹, Kensington Park-gardens, W., the wife of W. H. Lamb, M.B., of a son.
ROTH.—On March 26, at Rossmore, Preston-road, Brighton, the wife of Bernard Roth, F.R.C.S., of a son.
WILLS.—On March 22, at Bensham Lodge, West Croydon, the wife of Charles Wills, M.D., of a daughter.
WYATT.—On March 24, at Stamford Hill, N., the wife of W. T. Wyatt, M.A., M.B., M.R.C.S., of a daughter.

MARRIAGES

RING—SINCLAIR.—On March 21, at Belfast, James Ring, M.D., Surgeon Army Medical Department, to Margaret Fitzgerald, daughter of Deputy Surgeon-General James Sinclair, M.B., Principal Medical Officer, Aldershot Division.

DEATHS.

GRAVES, ARTHUR CAMPBELL, son of Surgeon-Major William Graves, A.M.D., at Meerut, North-West Provinces, India, on March 1, aged 5 months and 11 days.
GREENHILL, LAURA, wife of W. A. Greenhill, M.D., at Hastings, on March 27, aged 68.
MOORE, ALFRED W., M.R.C.S., at 2, Bessborough-street, S.W., on March 24.
SINCLAIR, Sir EDWARD BURROWES, M.D., King's Professor of Midwifery, T.C.D., at 45, Upper Sackville-street, Dublin, on March 21, aged 57.
TAYLOR, WILLIAM EELES, M.D., at Pulborough, on March 19, aged 67.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Candidates must be registered and possess both a medical and a surgical qualification. Applications, with original testimonials and certificates of registration, to be forwarded to the Secretary, Alexander Forrest, on or before April 12.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY.—Resident Surgeon. Candidates must be on the Medical Register as qualified to practise medicine and surgery; they will not be permitted to practise privately in either branch of their profession. Applications, with copies of testimonials, to be sent to the President, Cheltenham General Hospital, not later than April 17.

CHILDREN'S HOSPITAL, STEELHOUSE-LANE, BIRMINGHAM.—Assistant Resident Medical Officer. Candidates must be registered members of the medical profession, in accordance with the Act 21 Vict., cap. 90; and their certificates of registration, with their testimonials, must be sent to the Secretary at the Hospital not later than April 13. The election will be held on April 17.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Candidates must possess one registered qualification. Applications and testimonials to be sent to the Hon. Sec., Fredk. Eastwood, the Infirmary, Huddersfield, not later than April 3.

LEEDS GENERAL INFIRMARY.—House-Physician. Candidates must possess a medical degree in a British University, or be members or licentiates of a British College of Physicians. Copies of testimonials to be sent to Dr. Clifford Allbutt, at the Infirmary, on or before April 4.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Junior Resident Medical Officer. (For particulars see Advertisement.)

SCARBOROUGH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Candidates must be members of one of the Royal Colleges of Surgeons of the United Kingdom and registered under the Medical Act. Applications, with testimonial of recent date as to character, etc., to be sent to the Secretary, Hugh Watson, St. Mary's-walk, Scarborough (from whom all particulars may be obtained), not later than April 15.

SEAMEN'S HOSPITAL (late Dreadnought), GREENWICH.—Resident House-Physician. Candidates must be registered under the Medical Act as licensed to practise medicine and surgery. The successful candidate will be elected for one year, and at the expiration of this period will be eligible for re-election. Applications, together with copies of recent testimonials as to profession qualifications and moral character, to be sent to the Secretary, on or before April 6.

QUEEN'S HOSPITAL, BIRMINGHAM.—Resident Surgeon. Applications and testimonials, with certificates of registration, to be sent, under cover, to the Secretary at the Hospital, from whom all further information may be obtained, on or before April 10.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Physician. (For particulars see Advertisement.)

YORK COUNTY HOSPITAL.—Honorary Physician. (For particulars see Advertisement.)

UNION AND PAROCHIAL MEDICAL SERVICE.

. The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bodmin Union.—Mr. C. D. Nettleton has resigned the Second District. Area 13,262; population 2699; salary £34 per annum.

Drayton Union.—Dr. S. L. Popham has resigned the Workhouse: salary £25 per annum.

APPOINTMENTS.

Alston-with-Garrigill Parish.—Stewart Carson, jun., B.M., M.C. Edin., to the First District and the Workhouse. Alfred J. Pickworth, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Second District.

Olutton Union.—Edmund Thomas Hale, L.R.C.P. and L.R.C.S. Edin., and L.S.A. Lond., to the Chew Magna District.

Easingwold Union.—John McCracken, M.B. and C.M. Glasg., to the Easingwold District.

St. Asaph Union.—John William Owen, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Llanfairtahaiarn District.

Sevenoaks Union.—Frank Fraser, M.B. and M.C. Edin., L.R.C.P., L.R.C.S., and L.M., to the Fifth District.

Wallingford Union.—John Frederick Breach, M.R.C.S. Edin., L.S.A. Lond., to the Cholsey District.

THE Library of the Royal Medical and Chirurgical Society will be closed from Friday, April 7, to Monday, April 10 inclusive.

APPOINTMENTS FOR THE WEEK.

April 1. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Professor H. G. Seeley, "On Volcanoes."

3. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 5 p.m. General Monthly Meeting.

ODONTOLOGICAL SOCIETY, 8 p.m. Casual Communications from Messrs. Hutchinson, Canton, Cory, and Vereier.

MEDICAL SOCIETY OF LONDON, 8½ p.m. The President (Mr. Francis Mason) will exhibit a Case of Supposed Congenital Absence of Uvula (living specimen). Mr. Richard Davy will give an account of Cases illustrating his Method of performing the Circular Amputation. Mr. Thomas Bryant will report a Case of Gastrotomy. Dr. Hofmeister, "On the Carlsbad Waters and the Indications for their Use."

4. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ANTHROPOLOGICAL INSTITUTE, 8 p.m. Mr. C. Staniland Wake, "On the Papuans and Polynesians." Mr. C. Pfoundes, "On Rites and Customs in Old Japan."

PATHOLOGICAL SOCIETY, 8½ p.m. Specimens: Mr. Sydney Jones—Intestinal Obstruction by a Diverticulum; Tumour of Shoulder-Joint; Fibroid of Uterus. Dr. Hadden—Congenital Cardiac Disease: a New Tract of Spinal Degeneration. Mr. S. Boyd—Microscopic Specimens from Farcy; Colloid Scirrhus of Prostate. Mr. Butlin—Two Cases of Myxoma. Mr. Warrington Haward—Bronchocele with Secondary Growths. Mr. Leech (of Manchester)—Dilatation of Heart. Mr. Eve—Epithelioma of Oesophagus; Cancer of Membranes of Brain; Calcareous Tumours in Brain; Filaria from a Camel. Dr. Hobson—Malignant Lymphoma. Mr. Roger Williams—Calculus formed on a Shell. Dr. B. Fenwick—Intra-thoracic Tumour. Card Specimens—Defects of Valves of the Heart; Hyperostosis of Lower Jaw; Necrosis of Tibia; Hydronephrosis from Calculus, etc.

5. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Green.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Dr. J. B. Russell, "On the Policy and Practice of the City of Glasgow in the Management of Epidemic Diseases, with Results." Mr. M. D. Makuna, "Observations on the Pre-eruptive Stage in Small-Pox, with History of Cases."

HUNTERIAN SOCIETY (London Institution) (Council Meeting, 7½ p.m.), 8 p.m. Mr. W. Rivington, "On Cases of Rupture of the Bladder."

OBSTETRICAL SOCIETY, 8 p.m. Specimens will be shown by Dr. Oswald, Dr. Galabin, and others. The following papers will be read:—Dr. James Braithwaite, "On Two Cases of Removal of One Ovary only by the Vaginal Method." Dr. Popow, "On the Corpus Luteum." Dr. Champneys, "On the Pelvis and Skeleton of a Child showing Left Sacro-Iliac Synostosis and Oblique Contraction."

6. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

7. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 25, 1882.

BIRTHS.

Births of Boys, 1284; Girls, 1275; Total, 2559.
Corrected weekly average in the 10 years 1872-81, 2728·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	884	943	1827
Weekly average of the ten years 1872-81, } corrected to increased population ...	903·0	883·8	1789·8
Deaths of people aged 80 and upwards ...	...	...	66

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric(or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West	669633	...	9	2	3	29	...	4	...	2
North	905947	...	7	3	2	27	1	7	...	3
Central	282238	...	...	1	3	15	...	3	...	1
East	692738	...	8	2	2	53	...	7	...	5
South	1265927	13	22	12	9	61	...	14	1	8
Total	3816483	13	46	20	19	190	1	35	1	19

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	29·707 in.
Mean temperature ... ..	...	...	...	...	...	44·6°
Highest point of thermometer ... ..	...	...	...	...	...	60·0°
Lowest point of thermometer ... ..	...	...	...	...	...	28·8°
Mean dew-point temperature ... ..	...	...	...	...	...	39·9°
General direction of wind ... ..	...	...	...	...	...	S.W.
Whole amount of rain in the week ... ..	...	...	...	...	...	0·59 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the
Week ending Saturday, March 25, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Mar. 25.	Deaths Registered during the week ending Mar. 25.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London	3893272	2559	1827	24·5	63·1	28·8	44·6	7·01	0·59	1·50
Brighton	109595	51	57	27·1	53·3	28·5	42·1	5·62	0·64	1·63
Portsmouth	129916	62	50	20·1	...	...	...	...	...	...
Norwich	88821	55	48	28·2	...	...	...	...	...	...
Plymouth	74449	48	33	23·1	57·8	33·5	45·2	7·33	0·17	0·43
Bristol	210134	147	79	19·6	56·2	31·7	42·6	5·90	0·23	0·58
Wolverhampton	76756	52	43	29·2	61·2	26·3	41·5	5·28	1·15	2·92
Birmingham	408532	290	178	22·7	...	...	...	...	...	...
Leicester	126275	93	54	22·3	55·8	27·5	42·0	5·56	0·97	2·46
Nottingham	193573	142	86	23·2	63·6	25·2	42·2	5·67	0·31	0·79
Derby	83587	56	33	20·6	...	...	...	...	...	...
Birkenhead	86592	68	38	22·9	...	...	...	...	...	...
Liverpool	560377	375	241	22·4	57·3	33·5	43·1	6·17	1·30	3·30
Bolton	106767	73	38	18·6	55·1	27·9	40·3	4·61	2·03	5·16
Manchester	340211	228	197	30·2	...	...	...	...	...	...
Salford	184004	144	78	22·1	...	...	...	...	...	...
Oldham	115572	81	60	27·1	...	...	...	...	...	...
Blackburn	106460	69	60	29·4	...	...	...	...	...	...
Preston	97656	66	52	27·8	...	...	...	...	...	...
Huddersfield	83418	49	29	18·1	...	...	...	...	...	...
Halifax	74713	34	33	23·0	...	...	...	...	...	...
Bradford	188101	138	73	20·2	59·8	32·7	43·0	6·11	1·34	3·40
Leeds	315998	196	117	19·3	63·0	32·0	43·9	6·61	0·47	1·19
Sheffield	296516	197	141	25·3	57·0	30·0	43·1	6·17	1·13	2·87
Hull	158814	99	58	19·1	55·0	28·0	41·5	5·28	0·98	2·49
Sunderland	119065	91	57	25·0	64·0	32·0	45·6	7·56	0·29	0·74
Newcastle	147626	110	55	19·4	...	...	...	...	...	...
Cardiff	86724	67	27	16·2	...	...	...	...	...	...
For 28 towns	8457514	5640	3842	23·7	64·0	26·3	42·9	6·16	0·83	2·11
Edinburgh	232440	136	96	21·5	55·8	30·5	41·9	5·50	0·43	1·03
Glasgow	514048	384	245	24·9	...	...	...	...	...	...
Dublin	348293	227	233	34·9	54·4	30·3	44·1	6·73	1·44	3·66

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·71 in. The highest reading was 30·08 in. on Thursday morning, and the lowest 29·15 in. at the end of the week.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

The Clapham Home for Incurables.—The Lord Mayor, accompanied by the Lady Mayoress, visited the above institution, over which they were conducted by the Chairman, Dr. Rugg, the Physician, and the Secretary. On leaving, they expressed themselves highly gratified, and this (Friday) evening his lordship will preside at the twenty-first anniversary festival at the Albion Tavern, Aldersgate-street, E.C.

A Popular Dish.—Touching the persons (nearly twenty) who were seized with illness showing symptoms of poisoning after having eaten a “popular” dish called “souse,” bought of a pork butcher in the village of Handsworth Woodhouse, near Sheffield, Mr. Allen, the borough analyst, having examined certain portions of “souse” submitted to him, states—“It was in a condition of incipient putrefaction when received by me, and the interior of it was extremely offensive in odour. ‘Souse’ and brawn are well known to produce symptoms of irritant poisoning when in a certain early stage of decay, and I have no doubt that the effects produced in this case were due to this cause.”

Staff-Surgeon Royal Navy.—Sir W. Mure Muir, K.C.B., M.D. The pay of the Director-General as such is £1500 per annum. Admiral Sir William Domett was one of the Lords of the Admiralty at the time mentioned.

The Scottish Meteorological Society.—At the recent half-yearly meeting it was reported that the Society had 105 stations, and received, in addition to what they collected themselves, information of daily observations made at the sixty-one lighthouses on the Scottish coasts. Dr. Arthur Mitchell read a paper on the small-pox epidemic of 1881 in London. He showed, by aid of a chart, that the mortality from the disease was greatest in dry cold weather, above the average between January and June, and below the average during the rest of the year.

F.R.C.S., Exeter.—The annual election of Fellows into the Council of the Royal College of Surgeons will take place the first Thursday in July; the President will be elected the following Thursday, when no doubt the choice of the Council will fall on the senior Vice-President, Mr. Spencer Wells.

Building at Hove.—As building is being extensively carried on in Hove, considerable interest was excited in the cases of two builders charged at the Hove Police-court with infringing the local by-laws by the use of defective mortar. Samples of the mortar used in the building of dwellings had been analysed, and it was proved that the defendants had employed loamy earth from which organic matter had not been separated, thus rendering the mortar defective and injurious to health. Each defendant was fined £7.

Selling Poisons.—A woman, a smallware dealer, has been fined £2 and costs, at the Manchester Police-court, for selling oxalic acid and laudanum without proper labelling.

The Force of Example.—The St. John Ambulance Association has received from abroad very satisfactory testimony to the value of the work of the Society. Professor Esmarch was so much struck by what he saw and heard of the results of ambulance instruction in England, that he opened classes at Kiel, which have been attended by nearly nine hundred pupils. In the practical part he has been assisted by eleven surgeons, and several dressers and trained nurses. The civil and military authorities at Kiel have decided to form the first German ambulance centre.

A Weekly Report of Cholera in Bombay.—A standing medical board has been constituted in this city to report every week on the amount of cholera in the city, with the view of removing the vexatious quarantine restrictions imposed in Egypt on arrivals from Western India.

A Mortuary urgently needed.—The medical man who made a post-mortem examination of the body of a man who died under somewhat suspicious circumstances in a house in Wych-street, Strand, stated at the inquest “that it was a disgrace to the parish that a scientific examination of a dead body should be permitted to take place in a house in which about thirty people dwelt, and in every room of which children and grown-up persons lived, ate, and slept. He hoped never to be engaged in such a sickening task again.” The Coroner expressed his belief that when the Vestry were “apprised of the occurrence,” they would decide upon erecting a mortuary. It is to be hoped the Vestry will act as well as “decide.”

A Benefactor.—Mr. R. H. Wood, J.P., of Rugby, has intimated his intention of presenting to the town a free hospital for the poor. The gift will include a freehold site of ten acres, a new hospital for thirty beds, and an ample endowment to maintain the institution in efficient working order. The value of the gift is estimated at £30,000. It is stated that Mr. Waterhouse is to be the architect of the hospital.

Small-pox in the Colonies.—Sydney: The Board of Health has applied for twenty-one days’ minimum quarantine for vessels having cases of small-pox on board. The Government has telegraphed to the other colonies that the disease in New South Wales is practically eradicated. Melbourne: Small-pox has now disappeared, and only the convalescent patients remain in quarantine.

Deaths from Intemperance, Italy.—From January 1 to the end of November, 1881, reports the *Gazzetta di Napoli*, there were in Italy, among the 184,000 deaths occurring in the 284 chief towns of the realm, 304 deaths from chronic intemperance and delirium tremens, which gives an average of 1·65 per thousand fatalities from drunkenness, the proportions, however, being very different in the different regions of the kingdom.

New Whisky.—The deleterious effects of new or raw grain whisky are to be dealt with by Mr. O'Sullivan's Bill, recently introduced, by the provisions of which whisky must be compulsorily kept a year before being sold for consumption.

Adulterating Milk: Important Decision.—In a case of adulteration of milk by a milk-dealer of Claythorn-street, Glasgow—who was charged with having sold "sweet milk," which, on being analysed, was found to contain 27 per cent. of added water, but who pleaded not guilty, —Dr. Clark, for the prosecution, stated that on analysis he found the milk to contain 2·28 of fat, and 6·27 of solids not fat. During last year and the portion of the present year already expired he had analysed every week from ten to twenty samples of milk coming direct from farmers sending milk into the city, and in only one case was the amount of "solids not fat" under 9 per cent. In that instance the amount was 8·8 per cent. For the defence it was contended that, even assuming the milk to be as stated by Dr. Clark, that did not infer punishment against the seller, as the Act did not provide for any standard in the amount of "solids not fat." The Sheriff dismissed the case. He held that the respondent had not violated Section 6 of the Act, in respect—1. That there was no evidence to prove fraudulent adulteration to conceal inferior quality; 2. That there was no introduction of a foreign substance, water being present in milk of the Somerset House standard to the extent of 88·9 per cent.; 3. That there was no authorised standard for ascertaining the necessary percentage of fat in order to justify a conviction; and 4. That no demand was made by the sanitary inspector for the Somerset House standard, and that the article supplied by the respondent might, for aught that had been proved, have been of a quality and price suited to the wants and means of the respondent's customers. On behalf of the Sanitary Department notice of appeal was given.

A District Visitor.—Water is highly receptive of foul and foetid elements. It is extremely susceptible of taint, even without direct contact with decaying matter; and it cannot be kept pure for many hours in an impure atmosphere. In densely inhabited localities surrounded by multitudes of buildings, atmospheric purity is, of course, all but impossible.

Duelling by Students.—Not only in the German Empire itself, but in the German-speaking canton of Switzerland, the Legislative Councils have been discussing the abolition of duelling. The Government Council of Zürich has issued a severe ordinance against academical duelling under any form whatever. The *Neue Zürcher Zeitung* states that about one hundred students of the University of Zürich, indignant at the attack of the State upon the ancient liberties of the candidates for a medical, legal, or theological career, have assembled, and pledged themselves by resolution to leave the University and pursue their studies (and their brawling) under the protection of some less chicken-hearted *Alma Mater*. But it is also stated that the ordinance is simply a re-proclamation of the old (still unabrogated) law of Zürich against duelling.

Money Grants to Local Authorities.—The Metropolitan Board of Works have granted, subject to the consent of the Local Government Board and the Treasury, the application of the Kensington Burial Board for an advance of £8500 for the purchase of land to enlarge their cemetery at Hanwell. The Board have also granted, under similar conditions, the applications of the Guardians of Islington for loans of £42,000 for purchasing the City of London Workhouse at Holloway, and of £5000 for the erection of a relief-office and dispensary in Highbury-mews.

"What Constitutes a Pauper?"—A district medical officer, feeling some scruples in reference to what was, in his opinion, a questionable appropriation of parish relief, wrote to the Local Government Board, asking for advice as to "what constitutes a pauper," entitling him or her to medical relief. Acting upon instructions from the relieving officer of the district, he had been attending—of course in his official capacity—cases which he classified as follows:—1. An only child; father in constant receipt of 18s. weekly, and mother earning from 10s. to 14s. per week. 2. A man keeping a lodging-house of a rental of £14 per annum. 3. A man in constant employment at 20s. a week, and no family. 4. A servant whose father and mother are constantly employed and earning from 25s. to 30s., and no children dependent on them. 5. To attend a family with an annual income of £132. The Local Government Board replied that "It was his duty as medical officer to attend duly and punctually upon all poor persons requiring medical attendance within his district whenever he might be lawfully required to furnish such attendance by written or printed order of the guardians or of a relieving officer or an overseer of the poor." It was added, "If his services were required for the medical relief of persons who, in his judgment, were competent to pay for medical attendance, it was his duty to relieve the case in the first instance, and then report it to the guardians." The parish doctor is consequently required to attend to the order of a relieving officer if even he is aware that the persons applying for medical assistance are competent to pay for it!

A Grateful Recognition.—A valuable gold watch and chain and a silver mounted inkstand, each with an appropriate inscription, have been presented to Sister Gray, of Her Majesty's Nursing Service, Royal Victoria Hospital, Netley, in recognition of her skill in nursing and her devoted attention to the sick and wounded officers during the last campaign in South Africa. Thirteen combatant officers and the medical officer, who were nursed by this lady at the seat of war, subscribed towards these gifts.

COMMUNICATIONS have been received from—

THE SECRETARY OF THE CAMBRIDGE MEDICAL SOCIETY; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Dr. MAKUNA, London; Mr. R. W. PAAKEZ, London; Dr. WILLOUGHBY, London; Dr. HEAMAN, London; THE DIRECTOR OF THE ANTHROPOLOGICAL INSTITUTE, London; Messrs. HOWARD and BULLOUGH, Acerrington; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON; Dr. CREIGHTON, London; THE HONORARY SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE PATHOLOGICAL SOCIETY OF LONDON; Mr. E. BLATCHLEY, London; Dr. L. ASH, Holsworthy; THE HONORARY SECRETARY OF THE ODONTOLOGICAL SOCIETY OF LONDON; Mr. R. BUATON, Shipley; Dr. W. ALAXANDER, Liverpool; Dr. JAMES WHITSON, Glasgow; THE SECRETARY OF THE ROYAL INSTITUTION, London; THE SECRETARY OF THE HUNTERIAN SOCIETY, London; THE SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY, London; Mr. J. POLLARD, London; Dr. W. G. HARDY, Bournemouth; Dr. LUCAS, India; Dr. F. CHURCHILL, London; Mr. BUATON, Aldershot; THE SECRETARY OF ST. JOHN'S HOSPITAL, London; Brigade-Surgeon L. KIDD, London; Dr. D. J. HAMILTON, Edinburgh.

BOOKS, ETC., RECEIVED—

Morbid Urines, by Charles Henry Ralfe, M.A., M.D.—A Visit to Madeira, by Dennis Embleton, M.D., F.R.C.P.—Smokeless Grates and Furnaces, by Albert James Hanks—Examination Questions on the Medical Sciences, by James Greig Leask, M.B.—Chronic Bronchitis, by J. Milner Fothergill, M.D.—Dis Spirito in Sassa per il Triennio 1877-1879—Excision of the Knee and Shoulder-joints, by P. J. Hayes, F.R.C.S.—Drainage in the Removal of Submucous Fibroids, by W. H. Baker, M.D.—An Ephemeris of Materia Medica, etc.—Infant Feeding and Infant Food, by Abraham Jacobi, M.D.—Annual Report of the Sanitary Commissioner with the Government of India, 1880—Vital Statistics of Small-pox and Vaccination, by Charles T. Pearce, M.D., M.R.C.S.—Physiology, by E. D. Mapother, M.D.—The Relation of Brain to Mind, by John Cleland, M.D., D.Sc., F.R.S.—Annual Report of the Sanitary Condition of the Township of Stretford for 1881.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Ciencias Médicas—Dublin Journal of Medical Science—Medical Herald—Archives de Neurologie—Philadelphia Medical News—Revista de Medicina—Boy's Own Paper—Leisure Hour—Sunday at Home—Friendly Greetings—Girl's Own Paper—Medical News—Brighton Guardian, March 29—The Animal World.

THE LOAN OF A FORCEPS.—Prof. Depaul, in one of his clinical lectures (*Gaz. des Hôp.*, January 28), when recommending the accoucheur never to repair to a case without his forceps, related the following anecdote:—"Some twenty-five years since, called to a case, I arrived without the forceps. The labour was quite natural, and all had gone as pleasantly as possible, when an attack of eclampsia suddenly occurred. Dilatation was complete, the head pressed on the perineum, and delivery was so advanced that if I had had a forceps it could have been at once terminated. I felt full of anxiety, when I recollected that, as I ascended the staircase, I had seen the plate of a *médecin-accoucheur*. I at once wrote a few words on my card, asking my *confrère* for the loan of a forceps, and sent it to him. It was night. Of a somewhat ill-tempered disposition, he got up, and grumblingly declared that he would not lend the instrument, which was too often misused. Thinking better of it, however, he soon after arrived in person, clad in nothing but a *robe-de-chambre*. I was not a little astonished at his forced intrusion, and asked him for his forceps, which he refused, declaring boldly that he would judge himself of the propriety of employing it. I implored him, for I was young then, but he most positively refused; and then, my Southern blood mounting up, I snatched the instrument which he had under his arm, and had him put outside the door by the husband and his servants. The poor patient was all this time in a state of coma, and I rapidly applied the forceps, with the effect of at once delivering her and putting her out of danger. Calling for a sheet of paper, and wishing that my lesson to my *confrère* should be a complete one, I wrote that I returned him his forceps, with fifty francs as the price of its hire. He accepted the money without saying a word, and from that time I have never heard of him."

ORIGINAL LECTURES.

CLINICAL LECTURES
ON DISEASES OF THE ABDOMEN.

By FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P.,
Professor of Materia Medica and Therapeutics at University College;
Physician to University Hospital, and Professor of Clinical Medicine;
Physician to the Brompton Consumption Hospital, etc.

LECTURE XI.

ON THE PHYSICAL EXAMINATION OF THE
ABDOMEN—*Continued.*

WE will now consider the examination of special organs, in the order in which I enumerated them in my last lecture.

A.—STOMACH AND INTESTINES.

1. All the ordinary methods of examination are applicable to these organs. It is worthy of note that certain conditions may be better appreciated in some instances by inspection than in any other way. Thus the shape and extent of a dilated stomach or of a distended portion of the intestine may be sometimes best determined by this method. Abnormal movements can also be occasionally seen well, especially those of a peristaltic character, and in the case of the intestine this may assist in fixing upon the seat of an obstruction involving this tube, the movements ceasing at this point, and being confined to the portion of bowel above. Palpation, of course, also helps in recognising these signs; while manipulation, friction, or pressure are employed with much effect in producing the movements just alluded to, and also in bringing out gurgling sensations and sounds within the alimentary canal. Palpation and pressure are, moreover, of the greatest value in recognising solid growths or accumulations in connexion with the stomach or bowels. Percussion is of essential service in the investigation of abnormal conditions of these viscera. Thus it not only reveals a general tympanitic state, but also local dilatation or distension with gas; as well as accumulations, and sometimes solid masses or infiltrations. It must be remembered, however, that the dulness which you would anticipate from the conditions last mentioned is very liable to be modified more or less by the gas contained within the alimentary canal. In determining local dilatations careful attention has to be directed to the precise quality of the sound elicited by percussion. With regard to auscultation, by this mode we listen for sounds produced within the stomach or intestines, whether spontaneous or brought out by pressure or succussion, or, in the case of the stomach, sometimes by the mere act of breathing or swallowing. It is said that fine bubbling sounds may be heard in some instances over the stomach, due to the fermentation of its contents. Auscultation is also occasionally useful along with percussion, for the purpose of listening to the sound elicited by this act, and conducted from one part of the abdomen to another. It is in connexion with dilatation of the stomach, or exceptionally of a part of the intestine, that auscultation reveals unusual conduction of the cardiac sounds, with altered quality. Rare instances have been recorded in which an amphoric sound has been heard during breathing in connexion with an intestinal perforation, where there was a free communication with the peritoneal cavity; it is described as having been most marked during inspiration. A similar sound has also been stated to have been produced in this condition by rapid and firm pressure upon the abdomen.

2. Although I have already pointed out the advantages to be derived from emptying the alimentary canal in all cases where the examination of the abdomen gives doubtful results, this proceeding demands special notice in relation to investigation of morbid conditions of the stomach and intestines. The act itself may reveal the nature of the condition, as in the case of a faecal accumulation; or it may enable more complete examination of different parts of the alimentary tube to be made, and thus some local disease to be detected. You must be on your guard, however, in certain cases, and remember that an accumulation may be associated

with organic local mischief, which you might be liable to overlook if some evident collection of faeces had been got rid of, thinking that this was the only abnormal state. Moreover, it is sometimes extremely difficult to remove an accumulation from the alimentary canal, and you may fail completely, and thus be led to the conclusion that the mischief is of another kind. By getting the stomach in an empty condition, you will be better able to carry out the modes of examination by which you determine its dimensions and form, especially when this viscus is dilated.

In examining the stomach for the purpose last mentioned, a somewhat opposite method to that just indicated may be of service, namely, when the stomach is empty to make the patient drink a quantity of water or other liquid while in the erect posture. The fluid may be heard dropping into the stomach when auscultation is practised; and percussion may also be performed, first while the patient is in the erect position, then in the recumbent posture, and lastly while lying on either side. Succussion may likewise give signs of value under these conditions.

3. The special examination of materials discharged from the alimentary canal is naturally of peculiar importance in relation to its own diseases. Practically they include those which come from the stomach, whether driven out by the act of vomiting or in any other way; and those which escape through the anus, being usually expelled by the act of defaecation. In some instances it is desirable to take measures to obtain these materials for examination when they are not discharged spontaneously, especially in the case of the stomach, where it may be necessary to study the digestion of different kinds of food, or of food at different stages of the process. Under these circumstances emetics or the stomach-pump have been employed; but of course you would not resort to such measures without due consideration.

I do not propose to enter into a detailed account of the examination of vomited matters and faeces, or of the various clinical signs which they afford. I have already told you that they need to be more or less elaborately investigated according to circumstances, and they may have to be submitted to chemical analysis or microscopic examination. In ordinary examination, not only is it necessary to inspect these substances, but also to smell them; and it may be necessary to stir them up, or to allow them to stand for a time. It must suffice if I indicate further the chief points to be attended to, which may aid in the diagnosis of gastric or intestinal affections—that is, so far as the objective examination of the materials is concerned.

a. With regard to materials coming from the stomach, the following particulars may be noted as being of consequence in different conditions.

(i.) The mere quantity of these materials is sometimes significant. Thus the discharge of a large quantity by vomiting, at considerable intervals, it may be of some days' duration, is very suggestive of pyloric obstruction with dilated stomach.

(ii.) It is always requisite to notice the obvious general characters of ordinary substances expelled from the stomach, of the nature of food or altered food, or belonging to the normal secretions. Thus it may be seen that the food is not altered at all, or only imperfectly digested; that some of its elements are unaffected; that it has undergone decomposition or fermentation instead of proper digestion; or that it has been so altered by the gastric juice that it cannot be duly digested. Curdled milk is a familiar substance belonging to the last category. The products of decomposition or of fermentation may also be evident; the latter being most obviously revealed by abundance of acids or acrid fluids, not of the nature of gastric juice. Excess or deficiency of this secretion can be recognised in a general way by its colour. In the case of vomiting it may be worth while to notice whether there is any bile in the materials discharged, as well as its proportion. The watery and neutral fluid brought up in some cases of pyrosis has been regarded as of the nature of pancreatic juice, but this is more than doubtful. In the examination of materials coming from the stomach for the purpose now under consideration, the sense of smell helps considerably; and it is always well to determine the reaction by means of test-paper. In some instances it may be desirable to have a chemical analysis made, but you would scarcely be competent to carry this out satisfactorily. Microscopic examination might also be helpful, especially in certain cases where it

reveals the presence of *sarcinæ* or *torulæ*. It can scarcely be said that, as a rule, this investigation enables us to determine the nature of a particular disease of the stomach; but it indicates how the process of digestion is going on, and in what respects it is abnormal, as well as certain deviations from the healthy state of the gastric juice. It is for the purpose of studying the digestive process that the plan of obtaining materials from the stomach at intervals, by artificial means, has been resorted to; but this is a procedure which you would only adopt under very exceptional circumstances. In some instances the characters of the substances belonging to the group now under our notice may help materially in determining the actual morbid conditions present. For example, in cases of pyloric obstruction, with gastric dilatation, the materials discharged at long intervals consist of food often but little digested; there are signs of free fermentation, with abundance of acids, *sarcinæ*, and *torulæ*; while even after violent vomiting there is no bile present. Vomiting of much gastric juice or bile is an evidence of considerable irritation of the stomach and upper part of the duodenum.

(iii.) The examination of matters discharged from the stomach for *unusual elements* introduced into this viscus is very important in some instances. These not only include various agents of a poisonous nature, but also physical substances which are quite incapable of digestion, and which have been swallowed either accidentally or purposely. In the investigation for poisons, of course, skilled knowledge adequate to the circumstances of the case is absolutely essential, and it is quite beyond my province to enlarge upon this subject, the examination usually requiring the services of competent chemists or practical physiologists.

(iv.) *Morbid materials* may be expelled from the stomach, alone or mixed with others, especially by the act of vomiting, and these are often highly significant. They may be at once evident, or you may have to look for them more or less carefully, or they are only detected on microscopic examination. They include chiefly mucus or a watery fluid; blood, generally more or less altered in appearance and characters; portions of the gastric structures themselves, or, it is said, even of neighbouring organs; pus in rare instances; fragments or elements of morbid growths, such as cancer; gall-stones which have entered the stomach; animal parasites, or fragments of them, especially intestinal worms, or portions of hydatids or echinococci; and the vegetable growths already mentioned, namely, *sarcina ventriculi* and *torula cerevisiæ*. It is unnecessary to enter here into a description of these various elements, but it will be evident that their presence would afford valuable information in many cases.

(v.) It is necessary to allude separately to *fecal* or *stercoraceous* vomiting. The odour and appearance are sufficiently characteristic of such vomiting, and it signifies that there is some impediment to the passage onwards of the *fæces*, which is driven upwards into the stomach by an anti-peristaltic action of the bowel. Hence it is a valuable and positive sign of intestinal obstruction.

(vi.) It will be sufficient to refer to the usefulness of examining *gaseous eructations* in many instances. This can usually be adequately done by the sense of smell, when it can be noticed whether the eructation is odourless, sour, or fetid like rotten eggs. Occasionally it might be advantageous to collect some of the gas, and examine it chemically.

b. The examination of the stools and other substances expelled from the *bowel* is often very helpful in diagnosis, and is certainly not practised to the extent which its importance deserves. We will briefly consider the particulars chiefly requiring attention, as indicating the nature of morbid conditions affecting the alimentary tube. As a rule, a mere general investigation is sufficient; but occasionally the *fæces* need to be examined chemically or microscopically.

(i.) The *amount* of *fæces* discharged, especially when their expulsion is aided by purgatives or enemata, may be worthy of notice. Thus, a very copious evacuation, of more or less solid character, reveals the fact that there has been an accumulation in the bowels, and the appearance of that last discharged will help in determining whether any further collection remains. On the other hand, if only a small quantity of firm *fæces* is expelled daily or at less frequent intervals, it may be concluded that an accumulation is taking place. In cases attended with diarrhoea also, the amount discharged may not only be significant of different diseases, but may

give useful information as to the exact condition of things in particular complaints involving the bowel, such as intestinal catarrh, typhoid fever, or dysentery.

(ii.) The *shape* and *size* of the stools, when these are of a more or less solid nature, are significant of certain conditions. When they consist of small rounded lumps or scybala, it is certain that the bowel is not properly emptied. These points are, however, of most consequence in the diagnosis of contraction or stricture of some part of the bowel low down. As the *fæces* pass through this part they become moulded to it in shape and size, and thus are discharged in more or less narrowed and contracted masses or strips, which may present a peculiar and unusual form.

(iii.) The *characters* of the *fæces* are often of great consequence in the diagnosis of affections of the alimentary canal, and afford most valuable information. These include chiefly their consistence, colour, odour, and any peculiar appearances they may present. Not only is there the general distinction between the stools of constipation and diarrhoea, but proper examination will frequently reveal peculiarities in each class, which are more or less significant. This applies particularly to the various forms of diarrhoea, which may be illustrated by those due to intestinal catarrh, typhoid fever, dysentery, and cholera respectively. The characters of constipated *fæces*, as regards firmness, dryness, colour, and odour, may indicate that accumulation is taking place; and it may be mentioned in passing that they also show whether a proper amount of bile reaches the intestine. More careful examination of the stools will reveal whether the food or any of its elements is not duly digested, and for this purpose it may be requisite to make a chemical or microscopic investigation. There is an important class of cases in which the food passes rapidly out of the stomach and along the intestines, giving rise to a form of diarrhoea, in which the food appears obviously but little or not at all digested. This points to an irritable state of the alimentary canal and an incompetent condition of the pylorus. There is another group in which fat is present in abundance in the stools. It must not be forgotten that an examination of the stools may be necessary to determine whether a patient is really suffering from constipation or diarrhoea. Sometimes the latter symptom is complained of, when there is actually constipation and retention of *fæces*, the materials discharged consisting merely of mucus or other morbid products, which may even result from the irritation of retained *fæces*, or may be due to some organic disease, such as cancer.

(iv.) Not uncommonly it is necessary to examine what is discharged from the bowel, in order to ascertain whether any *unusual* and *abnormal substances* are present. Amongst these may be specially noticed foreign bodies swallowed accidentally or intentionally, such as fruit-stones, coins, etc.; poisons, or drugs taken medicinally; blood, usually much altered, and presenting a black or tarry appearance; calculi, especially gall-stones; the various kinds of intestinal worms, or sometimes hydatids or echinococci; portions of the intestinal structures, or sloughs; and such morbid products as mucus, pus, fibrinous or croupous shreds or casts of the bowel, or cancerous elements. Some of these may be at once obvious; others require more or less elaborate investigation for their detection, or even the use of the microscope.

(To be continued.)

STRANGULATED HERNIA IN A CHILD, FOUR MONTHS OLD.—Dr. Vance reports in the *Louisville Med. News*, March 18, the case of an infant the subject of congenital right oblique inguinal hernia. For the first four months this was easily reduced and kept up by a truss. This having been left off for a day or two, the hernia came down, and could not be reduced. Seeing the child a few hours afterwards, and finding gentle taxis did not succeed, Dr. Vance at once cut down on the tumour, the size of a walnut, and notwithstanding the abundance of fat present, the sac was soon exposed, and was found of a dark colour. The constriction of its neck was so great that it was difficult to liberate it. This, however, was done, and the sac was returned unopened. In a few hours afterwards the infant was sucking, and in four hours the bowels acted naturally. No reaction ensued, the temperature remaining nearly normal. The little patient was exhibited about a month afterwards at the Louisville Medico Chirurgical Society, and during a severe fit of crying no impulse could be detected at the site of the wound.

A CLINICAL LECTURE

ON CROUPOUS PNEUMONIA IN CHILDREN.

*Delivered at the General Hospital for Sick Children,
Manchester.*

By HENRY ASHBY, M.D.,

Lecturer on Diseases of Children, Owens College.

(Concluded from page 288.)

THE prognosis with regard to acute pneumonia in children, when uncomplicated, mostly points to a favourable termination. The percentage of deaths is small—smaller, perhaps, than in almost any acute disease which attacks children. Henoch lost 2 out of 44 cases, Ziemssen 7 out of 200, Barthez 2 out of 200; Cadet has treated 70 without a death; in our 26 cases this year there has been no fatal case. We may therefore safely say that if the inflammation affect one lung only, is not accompanied by a pleuritic effusion, or occur in the course of nephritis, tubercle, or measles, in children of two to fifteen years, they are almost certain to recover. Pneumonias occurring after operations, or in the course of the diseases alluded to, are very much more dangerous to life.

In illustration of some of the points mentioned above, let us shortly relate the clinical history of two cases recently in the wards.

Jane A. G., aged five years and ten months, "was in usual health two days ago. Yesterday she was seized with vomiting, which has continued till to-day. Has burnt very hot; has a short cough, and is thirsty."

On admission (*second day* of the attack), pulse 144 (see Fig. 1, next page); respirations 44; temperature 104.6°. Face flushed; *alæ nasi* working. Right side of chest normal. Left apex percussion-note impaired, though it is not well marked; breath-sound soft and distant; apex behind also impaired; a little rhonchus heard at base, otherwise normal. Tr. *aconiti* Mij. 2nd hor.; ice-bag to chest.

Third Day.—Pulse 120; respirations 44; temperature 103°. Has taken twelve minims of tr. *aconiti*. Was sponged twice last night on account of temperature rising to 105°. Herpes on lips. Percussion-note impaired, left apex anteriorly and posteriorly. Breath-sounds faint. Evening: Pulse 108; respirations 48; temperature 104.2. Has taken twenty-four minims of tr. *aconiti*. Pulse full (see Fig. 2).

Fourth Day.—Last night, temperature 105°; was placed in a bath at 60° for ten minutes. Temperature was reduced to 100°, but rose to 104° six hours after bath. Tr. *aconiti* omitted. This morning, pulse 128; respirations 40; temperature 103.2°. Repeat tr. *aconiti* Mij. 2nd hor. Left apex behind, dulness increased; faint bronchial breathing; no râles. Right side, breath-sounds loud. Was sponged during day.

Fifth Day.—Pulse 112; respirations 40; temperature 102.2°. Tr. *aconiti* omitted. Physical signs unaltered. Evening: Pulse 124; respirations 48; temperature 104.4°; sponged. Tr. *aconiti* repeated.

Sixth Day.—Sponged last night. Temperature 104.8°. This morning pulse 88; respirations 16; temperature 99.8°. Left apex, same physical signs; few râles. Evening temperature 96.2°. Tr. *aconiti* omitted.

Seventh Day.—Pulse 88; respirations 24; temperature 97.2°. Physical signs unchanged. In a few days the dulness cleared up, and the child was well. In this case there was, no doubt, a croupous pneumonia of the left apex, affecting the central portion and never reaching the surface of the lung. There was an absence of decided dulness, tubular breathing, and sharp crepitation. The crisis came on the sixth day, the temperature falling from 104.6° at 2 a.m. to 96.2° at 8 p.m.—a fall of 8.4° in eighteen hours (see Chart I.).

M. H., aged five, admitted December 21, 1881. Patient admitted with a history of a mild attack of scarlatina two or three days previous to admission.

First Day of Pneumonic Attack.—Morning: Pulse 160; temperature 99°; very drowsy; respirations quickened; *alæ nasi* working; face flushed; chest normal; no physical signs in chest. Evening: Temperature 105.4°; placed in bath

for ten minutes at 65° Fahr.; reduced to 102°. Midnight: Temperature 105.6°; sponged at 60°; reduced to 103.6°.

Second Day.—Morning: Pulse 158; respirations 40; temperature 103.2°; still drowsy; left apex in front, slight want of resonance; breath-sounds weak; a little cough; urine, slight albumen. Evening: 4 p.m., temperature 105.4°; bath at 60° for ten minutes, fell to 99.8°; at 5.30 was 102.2°; at 8 p.m., 105.6°; bath at 60° for ten minutes, fell to 101.6°; at 9.30 was 99.8°.

Third Day.—Morning: Pulse 140; respirations 32; temperature 103°; left apex anteriorly, slight loss of resonance; breath-sounds weak; here and there a sharp râle heard; apex behind, similar signs. Evening: 4 p.m., temperature 105.2°; bath—temperature 99.8°.

Fourth Day.—Morning: Pulse 144; respirations 36; temperature 102.8°; very drowsy; left apex anteriorly and posteriorly, and upper part of axilla, dulness well marked; bronchial breathing; no moist sounds. Evening: 9 p.m., pulse 116; temperature 105°; bathed at 60° Fahr.; temperature fell to 98.8°, and by 10.30 was 97°.

Fifth Day.—Pulse 112; respirations 36; temperature 98.6°. Physical signs much the same; no moist sounds.

The temperature did not rise again after a temporary rise on the sixth day; on that day moist râles were heard, and in a few days all the physical signs disappeared (see Chart II.).

This case illustrates the use of the cold bath; it is possibly too much to say that it cut short the disease, but I certainly believe that it modified its course.

Treatment.—In discussing the treatment, we must in the first place acknowledge that there is no drug which we believe to have the power of cutting short the inflammation. It is very easy to deceive ourselves in this matter. Cases frequently come into hospital at the fag-end of the attack, a day or two before the crisis, and when the crisis comes it is easy to believe that the rapid fall in the temperature and the suddenly improved state of our patient is due to some medicine which we have administered. Many remedies have been extolled for the treatment of this disease. Our forefathers unhesitatingly bled from the arm, applied leeches to the chest, and gave nauseating doses of antimony to combat the inflammation. Since those days we have passed through the era of alcohol, ammonia, and poultices; while digitalis, quinine, aconite, and cold applications have had their votaries.

In treating this disease in children, we must bear in mind that we have to deal with a malady which in uncomplicated cases has a very favourable prognosis; that our patients are possessed of healthy hearts and arteries, as yet unweakened by fatty change or worn out by excess, but have excitable nervous systems peculiarly liable to "nerve storms," and readily unhinged by high temperatures and poisoned blood.

Death may threaten from convulsions and coma due to the high fever and imperfect excretion of morbid materials, as also from the extent of the lung involved, causing asphyxia and its consequent depressing effects upon the heart. We may remember, too, that if we can steer the patient safely through a week, we are near the natural termination of the disease, or at least of the inflammatory stage.

The treatment during the stage of high fever will necessarily differ from the stage of resolution which is not accompanied by a high temperature.

During the first or inflammatory stage, the treatment which I generally adopt is the combating of the high fever by the application of cold, and quieting the excited vascular system by the administration of aconite. The high fever, and with it the restlessness, excitement, and delirium, may often be held in check by an ice-bag to the head, or still better by the cap formed of flexible metal tubing, connected with a reservoir containing iced water, frequent sponging the body with cold water, and cold compresses or ice to the chest. If you have the patient in hospital, and under conditions where you can give much personal attention, there can be no better plan in suitable cases of lowering the temperature than by cold baths (60° to 70° Fahr.). The length of time your patient remains in the bath must depend upon his condition. Five to ten minutes' immersion, at a temperature of 60°, will be probably sufficient to lower his temperature to 100°; and you will find that a too long exposure to cold will sometimes produce a temporary depression of the heart. We have again and again resorted to the cold

CHART I.

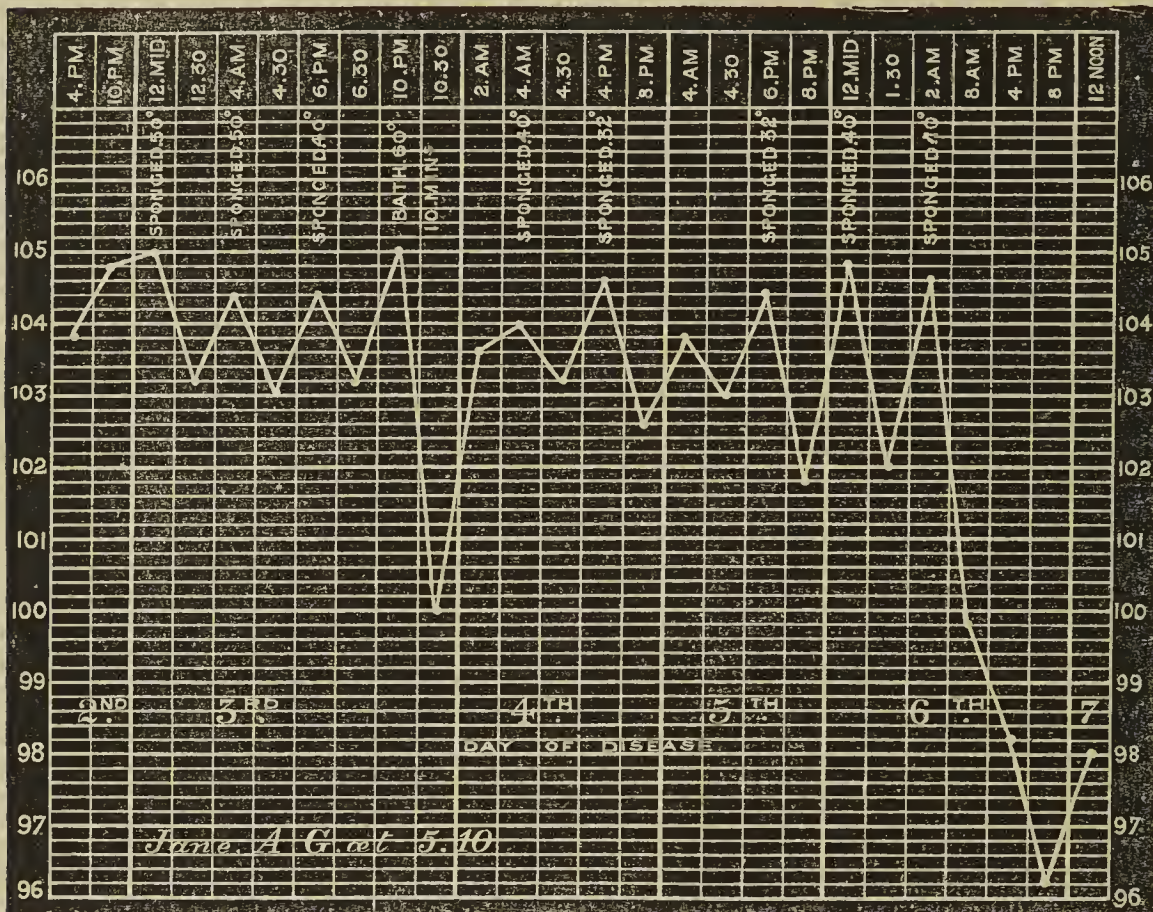


FIG. 1.

FIG. 2.

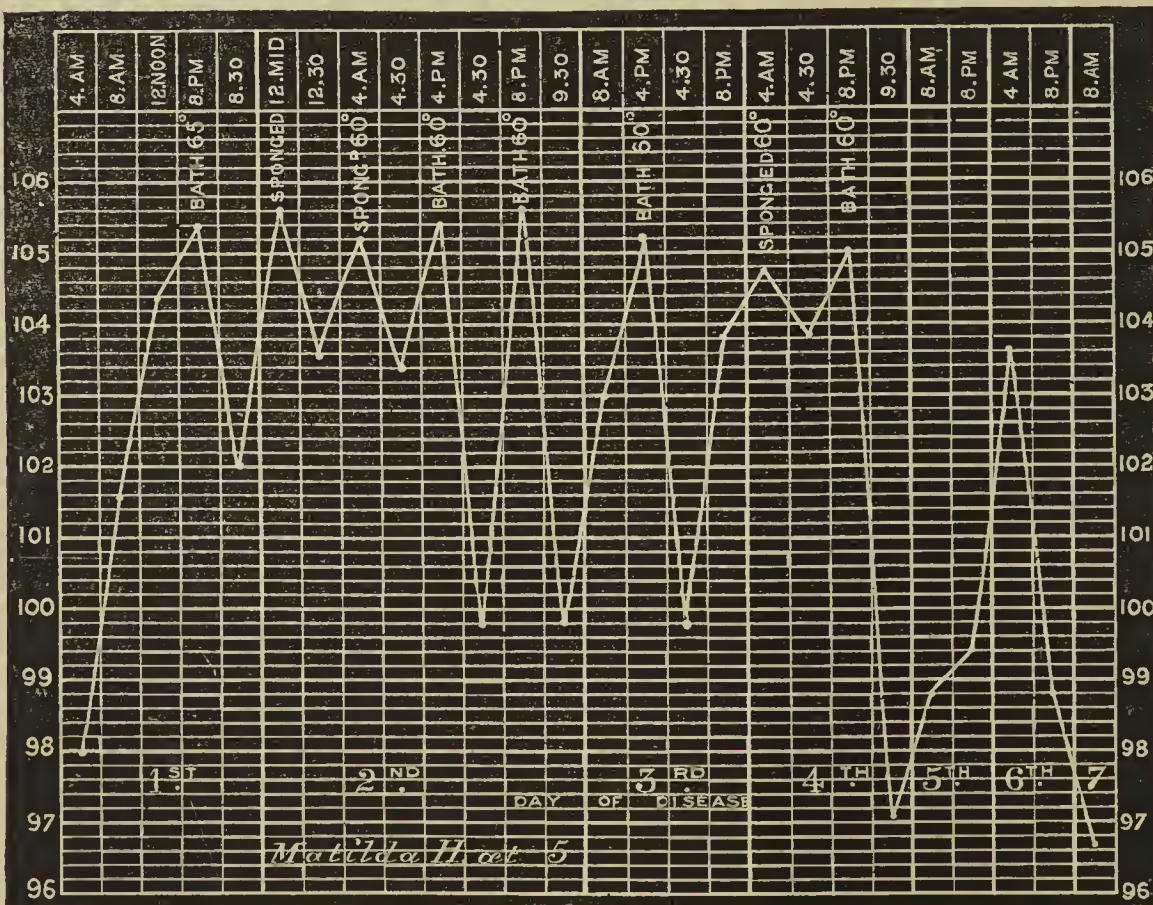


FIG. 1.—Pulse 144; pressure 2½ oz.



FIG. 2.—Pulse 108; pressure 3 oz., after tr. aconiti ℥xxiv.

CHART II.



bath in the treatment of acute pneumonias, with undoubted relief to the patient; but it is a remedy that should be applied only under the superintendence of a medical man, or at least an experienced nurse, on account of the depression that too long exposure is apt to produce.

Tr. aconiti, in doses of one or two drops, repeated every hour or second hour, until twenty or thirty drops have been taken, will certainly diminish the frequency and improve the tone of the pulse. Powerful cardiac poisons like aconite and digitalis are best given in small doses frequently repeated, and then omitted for awhile. The administration of aconite at first slows and improves the strength of the cardiac beats—probably by antagonising the sympathetic, both cardiac accelerators and vaso-motor,—and if pushed too far leads to intermittent and weakened action of the heart. That its initial effect is to improve the tone of the pulse, the accompanying sphygmographic tracings demonstrate (Figs. 1 and 2)—an observation I have had frequently the opportunity of repeating. The effect of aconite is much less marked upon the frequency of the respirations and also on the temperature. The guide to its administration is the pulse; after twenty or thirty drops have been taken, it will generally be wise to omit for perhaps twenty-four hours.

When the temperature has fallen, and the effused products are undergoing resolution, stimulating expectorants like ammonia carbonate or chloride, or turpentine in two or three minim doses, with senega or syrupus scillæ, will be appropriate internal remedies. If there is a tendency to become chronic, if the dulness, bronchial breathing, or loose râles do not disappear, apply linimentum or pigmentum iodidi freely every morning to the chest.

The question of alcoholic stimulants is a difficult one; they may not be needed, and indeed may often do more harm than good. High fever, delirium, do not generally call for brandy, but rather a low temperature, and a weak, quick, excitable pulse. If there is any symptom of a failing pulse, with collapse, alcohol (the brandy mixture of the Pharmacopœia) is the best drug that you can select.

In conclusion, I must express my great indebtedness to Messrs. H. E. Walker and C. R. Graham, the Resident Medical Officers, for abundant notes and sphygmographic tracings; and to the "sister" and nurses for temperatures and careful observations.

ORIGINAL COMMUNICATIONS.

CASE OF "HYSTERICAL" RETENTION OF URINE IN A MAN.

By JAMES RUSSELL, M.D., F.R.C.P.

A MAN, aged forty-one, was admitted into the Birmingham General Hospital, complaining of complete inability to pass his urine, and of defect in the free use of his legs. He brought with him a flexible catheter, which he kept by his side, by means of which he emptied his bladder three times in the day.

His statement was that during the preceding fortnight he had experienced difficulty in walking, and that a week before entering the hospital he had suddenly lost the power of expelling his urine. He endured the retention of urine until the following day, when he was compelled to summon medical help. A catheter was passed without difficulty; his bladder was relieved; but from that time he had ceased to be able to pass urine voluntarily, and, having been furnished with the means of relieving himself, he had used such means in the manner stated above.

At the first inspection of the patient the appearance of things led to the supposition that he was suffering from a paralytic affection; the catheter was withheld, but by the evening the House-Physician was compelled, by the complaints of the patient, to draw off the urine; and, in addition, the man's gait certainly indicated the existence of decided infirmity in locomotion. But further inquiry into the history threw doubt on the accuracy of our earliest impression, and confirmed a suspicion suggested by the very sudden manner in which such complete paralysis of the bladder appeared to have been effected. In the first place, the man was obviously a very nervous subject, with light complexion, reddish hair, and a high forehead. Eighteen months previously he had sustained protracted mental strain in connexion with the illness and death of his wife. This occasion was followed by a nervous tremor, especially when he was worried, which prevented him from sleeping. He alleged that he had not enjoyed a night's uninterrupted sleep for five months, but slept in short dozes, interrupted by the slightest noise. He had been losing flesh—apparently in consequence of his nervous condition, for his appetite remained good.

He had gonorrhœa three years ago, but believed himself to have perfectly recovered, and no difficulty in micturition had remained; the urethra freely allowed the passage of a full-sized sound, and the prostate was quite healthy. But it appeared that for a fortnight before retention set in he had experienced pain in the hypogastric region, and for a week pain along the urethra immediately before the urine passed, which occasioned slight difficulty in emptying the bladder. On examining the urine we found a scanty deposit of leucocytes; in other respects the urine was perfectly healthy and of acid reaction.

Then, with regard to the infirmity in locomotion, it transpired that the patient had suffered from rheumatic pains for ten years—a sequel to an attack of rheumatism,—and that for a fortnight before coming under our notice he had irregular pains in different parts of his body; pains had attacked the calves of the legs, and it was painful to him to bend his knee. His mode of walking quite admitted the hypothesis that he was somewhat crippled by pain or stiffness. Acting on this information the catheter was permanently withdrawn, and the patient was told that he must send for one of the resident officers if he wanted his bladder emptied. The effect was almost immediate; on the following day, or day after (the notes do not state which), he passed his urine spontaneously, and from that time had no further trouble in that respect. The power of walking was recovered gradually, and recovery was plainly hindered by muscular stiffness and by some joint-pain also; and after

recovery he suffered from return of stiffness in the ham-string muscles, and also from pain in the epigastrium, which he much feared might "go down into his bladder again."

In this case the sequence of events was very plain, and shed an interesting light on what probably occurs in many cases of hysteria. We have, in the first place, a morbid condition of the nervous system, consisting in a highly sensitive state of the recipient centres, engendered by much anxiety, acting on nerve-tissue already by predisposition intolerant of any unhealthy influence, as indicated by the nervousness, the tremors, and the sleeplessness. The effect of the limb-pains, in themselves by no means severe, in restricting the free use of muscles and joints to such an extent as to interfere with locomotion, pointed to morbid sensibility to pain. Under these circumstances urethral irritation of a very mild character (for it was never spoken of afterwards) was set up—possibly rheumatic, or connected with the previous gonorrhœa, indicated by the leucocytes in the urine,—and pain was produced in the urethra by the presence of urine. As a result, the pain in the urethra, just as the urine had entered the neck of the bladder, consumed the whole attention of the patient, and he forgot to exert the normal cerebral influence which is requisite in order to control the inhibitory centre of the vesico-anal apparatus; the reflex activity of the sphincter vesicæ thus remained in full activity, and the passage of urine was effectually barred.

It is hardly necessary to recall the generally received opinion that a controlling centre probably exists in some part of the cord at a higher level than the genito-anal centre, which governs the action of the sphincter vesicæ; and further, that everyone's experience supports the result of observation to the effect that the controlling centre in the cord, or (if that do not exist) the entire urinary muscular apparatus, is subject to the influence of the cerebrum.

The case has much analogy with hysteria, both in its substratum of an abnormal condition of the nervous centres, and in the presence of some local defect as the immediate cause of the morbid development; as, e.g., witness how many cases of hysterical aphonia start from an ordinary catarrhal sore-throat.

ON TYPES OF IMBECILITY.(a)

By FLETCHER BEACH, M.B. Lond., M.R.C.P.

Medical Superintendent of Darenth Asylum, Dartford.

(Continued from page 302.)

ACQUIRED IMBECILITY.

MORE improvement, I think, on the whole, occurs in this class than in Congenital Imbecility, and it appears to me that this is what *a priori* would be expected. Congenital imbeciles are born with brains deficient in quality as well as, often, in quantity. Whether training does or does not increase the number of cells is a moot point; but if it simply improves the quality of those present, although improvement may occur, I cannot see that we can ever expect recovery to take place. The microscopical sections in my possession show the greatest difference between a normal brain and that of a congenital imbecile. In the latter the cells are not only less in number, but also less highly developed, and in some sections resemble those of the lower animals. In acquired imbecility we have a brain which, though often highly sensitive and easily upset by slight causes, is no doubt of normal structure at first, and in course of time in many cases regains its normal condition, in the same way as does the brain of a lunatic. Exception must be made to those patients who are subject to frequent and repeated fits, and in whom treatment has no effect. On the other hand, some of my most improved cases have been epileptics in whom there has been an entire cessation of fits under treatment.

ECLAMPSIC IMBECILITY.

These are cases where convulsions have come on soon after birth, continued some years, and then ceased, but have so altered the structure of the brain that the child has become imbecile. In most of the cases which have come under my

(a) Paper read before the Harveian Society.

apoplexy, or epilepsy in the parents, and the child has been handicapped, as it were, in the race of life, and had less chance of recovery from the fits without loss of intellect. The photograph which I hand round is a case of this kind. Fits notice there has been intemperance, or a history of insanity, came on at twelve months, and continued for nine years. She is very dull, and has made scarcely any progress. There are several cases of the kind in the Asylum, and I select one as a specimen. A. H., aged eighteen years, appeared mentally sound at birth, and was a lively child up to the age of two years. She had convulsions when cutting her teeth at the age of seven months, and they continued till she was five years old. After the fits ceased—that is, when she was five and a half years old—she became first very excitable, and afterwards very quiet. The mischief by that time was done. Both her paternal uncle and grandfather were insane, so that in all probability she was born with an unstable brain, which was easily upset. On admission, she was a fairly nourished child with a muddy complexion, and so listless in disposition that she would sit still for hours together if allowed. She could not speak, though she would sing to herself at times—the ability to sing before being able to speak being an occurrence not at all uncommon among imbeciles. Some, as Meynert, account for the fact by affirming that there is a separate centre for music; others by saying that singing requires a less highly developed brain than speaking, and therefore the accomplishment would appear first in the course of development, and disappear last in disease. The girl was three years and a half under training in the Asylum, and during that time learnt absolutely nothing.

EPILEPTIC IMBECILITY.

As before stated, this class includes some cases where with cessation of fits the greatest improvement takes place, and others who go on from bad to worse, the fits becoming more frequent and more severe, and the result is utter dementia. The first three photographs which I send round are cases of entire recovery. One of the boys has been sent home and is earning his living as a shoemaker; the girl is earning her living in the Asylum as a servant; and the other boy, though cured of the fits, I still think requires some further training before sending him home. The next three are cases of great improvement. The fits have become less in number, and in course of time, I have no doubt, will cease entirely. The faces all present a fairly intelligent appearance. These three boys have learnt tailoring, and one of them is, as represented in the photograph, in the fife-and-drum band.

The photograph which I now hand round is that of L. F., aged ten years, who has made little improvement. She is brighter than when admitted, but still does not make much progress. Her maternal grandfather is epileptic, and three of her brothers and sisters died of convulsions in teething, so that the family history is bad. She was very excitable as a child, and when six years old had a number of fits, which have continued ever since. After them speech was lost for a time. On admission she was a fair-haired, well-nourished, nice-looking child, very listless, and unable to say more than a few words. After about six months' residence in the Asylum she became much brighter, would talk and take an interest in what was going on around her. Then, as a result of frequent fits, she became lost and dazed. She remained in this condition for several months, when she became a little brighter and made a little progress in school. She could repeat letters, numbers, etc., but could not be made to answer a question. Lately the fits have become much less frequent, and she talks more.

The last case, that of M. Y., shows the demented state into which patients get as the result of repeated fits. Her face, you will see, is of low type in addition.

These patients illustrate the remarks I made just now. You have seen photographs of three who have recovered—three much improved, one little improved, and one who has deteriorated.

HYDROCEPHALIC IMBECILITY.

I just now spoke of cases which were hydrocephalic and imbecile from the time of birth. I now go on to describe others who, though hydrocephalic at birth, did not become imbecile till some time afterwards. F. W., aged eighteen, on admission was found to be a well-nourished boy, with weak circulation, dull and listless. The family history is not encouraging. His father and paternal grandfather died of apoplexy, and two paternal uncles are insane. In addition,

all the father's side of the family are excitable, and there is a history of phthisis on the mother's side. When eleven months old he screamed and became very excitable, but had no fit, according to the mother's account, though I think there is every probability he had one, from the fact that he afterwards became paralysed on the right side. He remained so for six months, and then gradually recovered. There was no sign of paralysis when he was admitted, though he was weak in both legs. As he grew up, he was noticed to get weaker and become dull. His parents are respectable people, and he had every chance of a good education, but he was unable to learn. When admitted he could only count to six; and though he was at school in the Asylum for three years and a half, he only learnt to read and write a few letters, repeat easy multiplication tables, and recognise a few colours. About eighteen months ago he grew very weak, passed his urine and faeces under him, and gradually died of exhaustion from diarrhoea. He had no fits while in the Asylum, so that one must suppose that his gradual deterioration was due to increasing quantity of fluid in the brain pressing on the cerebral tissue. Unfortunately I was unable to obtain a post-mortem examination.

PARALYTIC IMBECILITY.

I now refer to cases who have become so after birth, either from repeated fits, infantile paralysis, cerebral apoplexy, or atrophy of the brain. In these cases, as in those born paralysed, there is mental improvement under training if the patient is not subject to fits, but the paralysed limbs make little progress towards recovery. Schroeder van der Kolk has collected several cases where there was found shortening and atrophy of the limbs on one side, and atrophy of the opposite side of the brain. I have seen one such case myself. In the majority of patients more or less imbecility existed, though this is not always the case. He says: "Everything, in my opinion, depends upon the more or less healthy state of one hemisphere of the brain. If, as from the nature of the case seldom occurs, the inflammation and affection of the pia mater has not extended to this hemisphere, if the grey matter under the cerebral convolutions has here continued perfectly sound, there is no reason why this remaining hemisphere should not be able to act without impediment in the exercise of those functions which are necessary to our mental powers, just as one eye sees as sharply though the other be lost. But when the grey matter is injured in both hemispheres, particularly anteriorly, disturbance of the intellectual faculties will be inevitable." Most of the cases of acquired paralytic imbecility in the Darenth Asylum have become so from repeated fits, and the photograph which I now send round is one of this kind. It is that of R. F., who, when admitted, was nine years old. The family history shows that his father was very intemperate, and died in India some years ago. His mother at the time of his admission was in Hanwell Asylum, so that there is every probability that his brain was unstable from birth. The boy was subject to fits, which came on four years before admission, and soon afterwards he was noticed to be getting dull. On admission he was found to be fairly nourished, but his face was stolid and expressionless; he was paralysed in the left arm, and there was paresis of the left leg. He knew and could be taught nothing, but he was often absent from school in consequence of the frequency and severity of his fits. These became more and more severe, and reduced him to a perfectly animal condition, and he finally died exhausted.

The case of W. C., aged thirteen years on admission, is an example of marked mental, though but little physical, improvement (I mean as to his limbs). There was a history of consumption on the father's side; and a paternal uncle died paralysed. He was a healthy child when born, but when three years and a half old he had a fit in the night, and when he woke up in the morning was paralysed. Nine months afterwards he had another fit, affecting the right side. He never recovered good use of his leg, though his arm and hand regained nearly their normal power. On admission, he was a fairly intelligent-looking boy, with paresis of the right leg, so that he walked with a halting movement. He had fair power in his arm and hand. He could read—though badly—from the First Standard, write in a copy-book, and do an addition sum incorrectly. He made such progress that, after three years in the school, he learnt to read and write well and became a good arithme-

tician. He was put to work in the shoemaker's shop, where, after a little while, he improved so much that his labour was calculated to be worth 6s. per week. I have recently discharged him to the care of his friends.

INFLAMMATORY IMBECILITY.

I mean by this term imbecility which has come on after some illness, such as measles, typhoid fever, whooping-cough, etc., as a result or complication of which there may be inflammation of the brain or membranes—not sufficiently grave to be fatal, but serious enough to cause mental impairment. "The amount of damage to the intellectual powers," as Dr. Ireland says, "must be mainly dependent upon the intensity of the morbid process." This, unfortunately, we have seldom a direct opportunity of measuring, as the patient does not come to us till long after the disease has passed away. If one of the diseases above mentioned should occur in a child previously disposed to imbecility by being born of parents whose family history shows the existence of marked neuroses, there would be the greater likelihood of imbecility following.

The three photographs which I now hand round are all cases of this class. In the first, R. D., the imbecility came on after a serious illness when four years old. In the second, J. I., it came on after whooping-cough and typhoid fever, when two years and a half old; and in the third after measles, when four years old. After this she (third case) became excitable and passionate, and continued uncontrollable and excitable. On admission, she was a fairly nourished, well-behaved child, who was able to be of some use in the ward. She could read incorrectly from the First Standard, spell words of two and three letters, and knew a few colours. After four years' training, she can read correctly from the Second Standard, spell words of four and five letters, write words of two letters in a copy-book, do multiplication tables, and make herself useful both in sewing and in her dormitory. I have sent her home on two months' trial, in order to see what progress she makes in the outside world.

Another patient, E. W., has made less progress, perhaps on account of a bad family history, and more injury accruing to the brain. She is said to have become imbecile from inflammation of the back of her neck when eighteen months old, but, as she became unconscious, I think there is no doubt the disease was some form of brain-affection. One of her maternal aunts is epileptic, and several of her brothers and sisters have died of convulsions in teething. On admission, she was a quiet, useful girl, occasionally lost in her manner. She remained in the school for three years and a half, but only learnt to read and write a few letters, do a little simple arithmetic, and recognise the colours.

HYPERTROPHIC IMBECILITY.

I have placed this class under that of the inflammatory, because the post-mortem appearances of the patients who have died of this disease in the Asylum show that there is or has been chronic inflammation of the brain. I proceed to relate two cases. The first, A. H., aged sixteen years, was under treatment for twelve months, when he died. There was no history of nervous or any hereditary disease in the family. The parents were temperate. His mental deficiency is said to have been noticed after a series of convulsions from which he suffered when teething at the age of nine months. He had none afterwards. On admission, he was a well-nourished boy, of dark complexion, with a large head, square in shape, and having well-marked frontal prominences. He was bright-looking, good-tempered, and willing to work. There was no loss of sensation or of motion, and no sign of rickets. His mental capacity was fair. He went to school in the Asylum, worked as a tailor, and assisted in household work. During the ten months he was under training he made good progress in school and shop. He was an imbecile, who, if he had lived, would have considerably improved. His general health was good, and, until the illness from which he died, he had only been treated for minor ailments. About five days before death he was seized with a convulsive tremor, from which he recovered, but on the day of his death he had another fit, from which he died. At the post-mortem examination, besides congestion of the brain and membranes, there was excess of subarachnoid fluid and a layer of pus

over the posterior portion of the frontal convolutions on the right side. This, no doubt, was the cause of the fit. The important point, however, was the great size of the brain, which weighed sixty-two ounces. This immense weight was due to the large increase in the amount of the white matter, which, on being subjected to microscopical examination, showed a uniform granular appearance, with nerve-cells scattered sparsely throughout. There were a number of leucocytes and vessels present, but these appearances were no doubt due to the disease which ultimately caused his death.

The second case, A. C., aged ten years on admission (whose photograph I pass round), was admitted five years ago. His mother is hysterical, and had an epileptic fit when pregnant with her eldest child. The maternal grandmother died of epilepsy. On the father's side there is a history of phthisis. The mother had a fright when pregnant with A. C., and became unconscious. When two years old, while teething, he had a fit, and has had them ever since. He was always dull and sleepy, and, as a child, used to "bob" his head forwards. The head was large when he was born, but the projections on his forehead have since come on. He is a fairly grown boy for his age, but has a very vacant look. The head is large, square in shape, and there are well-marked frontal prominences. He complains at times of headache, and points to the right temporo-parietal region when asked where the pain is situated. There is a very slight depression, the size of a sixpence, in the region of the anterior fontanelle. He walks slowly and totteringly, hanging his head slightly forward, and with his left shoulder depressed. He cannot stand long at a time: soon he begins to lean forward, and would fall if not supported. He goes to school fairly regularly, but makes no progress. Questions are answered slowly, and there is a distinct pause before the reply commences. He suffers much from headache, and altogether is gradually deteriorating. The intelligence is not always affected in hypertrophy of the brain, yet mental deficiency is often the result, and the disease is chiefly met with in institutions for imbeciles and lunatics. During my three years of office at the Children's Hospital I never saw one case, but six cases have come under my observation during the last seven years at the Clapton and Darenth Asylums. Andral says that there are two periods in the disease—first, the chronic stage, when the symptoms, whatever they may be, are slight; in the second it suddenly presents the appearance of an acute affection, and the patients die of convulsions or of some acute affection of the brain. In the first of the two cases, particulars of which I have given, the disease certainly took this course. The second case is getting progressively weaker, and I have no doubt will some day die of exhaustion from epilepsy or brain-disease, if not previously cut off by some lung-affection.

None of my cases have presented signs of rickets. Dr. West, however, states that hypertrophy of the brain is associated with that disease, but he goes on to say that, as the health improves, the rickety deformity of the limbs gradually disappears.

As my cases of hypertrophy of the brain, with one exception, were not admitted till after the age of ten years, and were in fair bodily health at the time, any rickety deformity which may have been present would no doubt have disappeared. With reference to the weight of the brain of A. H., I would just mention that, comparing it with that of others of the same age who have died, I find that it weighs fourteen ounces and a half more than the highest weight recorded.

The diagnosis of hypertrophy of the brain from chronic hydrocephalus chiefly rests on the history of the case and the form and size of the head. Dr. West remarks that "the symptoms of chronic hydrocephalus generally come on earlier, and soon grow more serious, than those of hypertrophy of the brain, and the cerebral disturbance is throughout more marked in cases of the former than in those of the latter kind." My distinctive diagnosis of hypertrophy of the brain from chronic hydrocephalus rests on the following points:—

In hypertrophy, the brain does not attain so large a size as in chronic hydrocephalus. The first case related measured 23 in. in circumference, the second 22 in. I have three cases of chronic hydrocephalus now in the Asylum, and their heads measure respectively 23½, 25½, and 25¾ in. in circumference.

In hydrocephalus the increase in the size of the head is most marked at the temples; in hypertrophy, above the superciliary ridges.

In hypertrophy the head is square in shape; in hydrocephalus it is rounded (outlines).

In hydrocephalus there is often elasticity over the late-closed fontanelle. In hypertrophy there is none, and there is often a depression in that situation.

In hydrocephalus the distance between the eyes is increased; in hypertrophy this is not the case. (b)

TRAUMATIC IMBECILITY.

In this class are included cases where, from a fall or blow on the head, the patient becomes imbecile. Under this heading also would come cases resulting from injuries to the head caused by narrowness of the pelvis and prolonged labour. The degree and nature of imbecility so produced must vary with the amount of the destruction of nervous tissue. "Sometimes the injury to the mental power is permanent, sometimes it disappears more or less slowly: in some cases a trifling injury causes grave disorder; in others, what appears to be a great injury leaves no visible effects behind. Hereditary predisposition has, no doubt, much to do with this." (c) The photograph of E. R., aged twelve years, illustrates a case of this class. The child was born while the mother was standing, and the head came in contact with the foot of the bedstead. The mother was very much worried when pregnant with this child, and this, no doubt, further contributed to the child's imbecility. The family history is good. The patient has made good progress, and will, in course of time, very probably, be discharged recovered.

C. H. K., aged fourteen years, is not so likely to improve, and this is probably due to the fact that he has an intemperate father, and his maternal grandmother is epileptic. We have here hereditary predisposition exerting its influence. The boy was mentally sound when born, and continued so till he was five years old, when he fell from a height on to the back of his head, and was picked up insensible. After the fall he was noticed to become foolish. He is a well-nourished boy, of cheerful temperament, and though he attended school for some time before admission, learnt very little. On admission, he could only read and write a few letters, and could not add one and one together. He has been with us now over three years, and has learnt the alphabet and several words by the word method of teaching, but has made little progress in arithmetic and in the tailor's shop. I have many other cases of this class in the Asylum, but in these the fall on the head has produced epileptic fits, and these continuing, prevent mental improvement.

ENDEMIC CRETINISM

Is not very common in this country, though cases are met with in Derbyshire, Somersetshire, and the West of Yorkshire. I saw some cases in the Savoy two years ago, and found that they differed from the cases of sporadic cretinism which have come under my notice in the Asylum, in consequence of the presence in the former of large goitres and the absence of fatty tumours in the posterior triangles in the neck. Otherwise they present the same characters as those described in a former part of the paper. A Commission, appointed by the Sardinian Government, divided them into three classes, according to the measure of their mental powers:—

In the first class the subjects have only vegetative faculties, are entirely destitute of reproductive and intellectual powers, and cannot speak. These are styled simply cretins.

In the second class they have vegetative and reproductive faculties and some rudiments of language. Their intellectual efforts go no further than their bodily wants, corresponding only to the impression of the senses. These are called semi-cretins.

The third class adds to the faculty of the preceding one a greater amount of intellectual power, without reaching the normal human capacity. They have some aptitude at learning a trade or doing different kinds of work. They are called *crétineux* or cretins.

(b) I have treated the subject more fully in a paper, "On Hypertrophy of the Brain in Imbeciles," published in the *Journal of Mental Science*, April, 1881.

(c) Ireland, *op. cit.*

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

CASE OF PLEURAL EFFUSION—PARACENTESIS.

(Under the care of Dr. FINLAY.)

THOMAS D., forty years of age, a porter, was admitted on September 20, 1881. There was nothing in his family or personal history bearing upon his present illness.

On admission he complained of shortness of breath and dry cough of a week's duration; he had no pain. The urine was somewhat scanty, specific gravity 1020, acid, and free from albumen; pulse 112; respirations 24; temperature 102°. He was a slimly made man of medium height and fairly nourished; weight 8 st. 8½ lbs. On physical examination of the chest expansion was found to be impaired on the right side, which looked fuller and measured an inch more than the left at a level one inch below the nipple. Resonance was impaired over the whole lung, the lower three-quarters posteriorly being absolutely dull. Here the vocal fremitus was absent, as was also the respiratory murmur, except close to the spine, where feeble breath-sounds might be heard. These were distinct over a small area of about two superficial inches at the extreme base. The voice-sounds had a nasal character about the angle of the scapula, but there was no true ægophony. There were no friction-sounds audible. Over the anterior apex bronchial breathing could be heard; the liver dulness extended two fingers' breadth below the costal margin in the nipple line. Over the left lung the resonance was good everywhere, and the breathing exaggerated, but free from adventitious sounds. The heart's maximum impulse was found one inch and a half outside, and one inch below, the left nipple; the sounds were free from murmur. The patient was ordered a mixture containing acetate of potash and iodide of potassium, but as no improvement had taken place in his physical condition by the 26th (six days after admission), paracentesis was performed in the eighth interspace, two inches below the angle of the scapula, and sixty-five ounces of clear serous fluid removed. After the removal of fifty ounces the patient complained of pain across the front of the chest, with dyspnoea, and coughed, apparently in considerable distress. The tapping was accordingly intermitted for a few minutes, after which the remaining fifteen ounces were withdrawn, and the operation concluded owing to a return of the distress in breathing. The heart's apex was now found in the nipple-line; feeble vocal fremitus was felt over the right front and upper half of the back, and the percussion note was much improved, being fairly resonant in front, and only absolutely dull over the lower third posteriorly. Over the whole front respiratory sounds were heard, accompanied by friction; and breathing was also heard, but more feebly, over the greater part of the back. The right side was also found to measure three-quarters of an inch less than formerly. Before the tapping (at 3 p.m.) the temperature stood at 103.2°; at 11 p.m. it had sunk to 99°. Next morning it was 100.8°, and in the evening it reached 104.4°, falling again to 99.2° on the morning of the 28th. For a week subsequently it averaged 100.5°, and during the rest of his stay in the hospital about 99°. After the tapping all his symptoms began at once to improve. He slept well, his breathing was comfortable, and the cough was much diminished; his appetite was better, and he could lie on either side.

On September 27 (the day after operation) he began to have some diarrhoea, which, as it was supposed to be rather salutary than otherwise, was not checked for two or three days, when it was easily controlled by chalk and opium.

Three days later (September 30) the note made was to the effect that expansion was still diminished over the right side; the percussion note was improved over the whole front, especially over the upper two-thirds, and vocal vibrations were increased; air also entered well the upper two-thirds, and feebly the lower third. Posteriorly, resonance, vocal vibration, and breath-sounds were fair over the upper

but Dr. Williams has grave doubts whether it can be beneficial to town-bred artisans, shopkeepers, and servants to turn them out of doors, *volens volens*, in all weathers to work on the land, or to make the semblance of doing so.

A writer in the *Journal of Mental Science*, quoted by Dr. Williams, states that in the Scotch Asylum where the labour system is most successfully carried out, 409 out of 486 patients are employed, and apparently for the men the chief employment is agriculture, and for the women laundry work. Having gone most carefully into the matter as regards the Sussex Asylum, Dr. Williams finds that on December 31 last 674 out of 846 patients in that institution were usefully employed, and that for the males there were sixteen different employments and for the women six. Of the 357 men in the Asylum on the day named, all but 81 had been employed during the year, and of the 81 not employed 17 were sick, 23 were mindless from dementia, 4 were blind, 3 were nearly ninety years of age, and 2 were paralysed—leaving 24 who could not be induced to employ themselves or were too violent to be allowed to do so.

The proportion of the employed to the unemployed in the Sussex Asylum is probably as high as it is desirable that it should be in any institution of the kind. Occupation is indisputably a valuable remedy in the treatment of the insane, but, like all other remedies, if converted into a panacea and used empirically, it becomes worse than useless, and a source of mischief. Lunatic asylums are primarily hospitals, and secondarily homes for incurables who manifest symptoms which make them dangerous to themselves and others, and, with a view to economical results or in obedience to any specious theory, to compel sick and broken-down men and women to engage in hard labour would be inhuman and disastrous. Rest—not idleness, but rest—is, we should say, more likely to prove restorative to a large majority of pauper lunatics than spade labour or immersion in soapsuds. The Prison Commissioners have had to put a check on the industrial pursuits in some prisons, because they had become subversive of discipline; and the Lunacy Commissioners ought to look warily on the labour-cure in asylums, lest that should supplant other and more scientific kinds of treatment. It is easier, of course, to turn out gangs of insane men to delve, and to exhort droves of insane women to stitch, stitch, stitch, than it is, by an elaborate analysis of symptoms, to arrive at a conclusion as to the cerebral and general somatic conditions in each of them, and to found on that a scheme of treatment, including medicinal agents, dietary, and habits of life. The spirit of the age, too, is in favour of the labour-cure. The diffusion, in a very dilute form, of the Gospel preached by the prophets of thirty years ago, has given currency to the notion that idleness in others is to be accounted disgraceful. The social atmosphere rings with injunctions to act in the living present, and with encomiums on the sweetness and dignity of toil; and so magistrates and boards of guardians, who make a pastime of public work, glow with philanthropic approval on the notion of working out the vein of madness which unluckily runs through our modern civilisation. They would regard with tolerant contempt the action of a medical superintendent who administered iodide of potassium to a patient suffering from locomotor ataxia,—muttering perhaps, “Throw physic to the dogs; I’ll none of it”; but would bestow cordial approbation on his sensible and intrepid treatment in having a patient who dragged his legs painfully from incipient myelitis marched off to trundle a wheelbarrow for the livelong day. And yet the action condemned as mere professional routine would be truly wise and humane; and that admired as far-seeing and judicious would be inadvertently destructive and cruel. And in mental, as in spinal, dis-

eases, there are many states of the nerve-tissue in which exertion of any kind is injurious and distressing. Cases in which such states exist are not perhaps always scrupulously discriminated where a system of wholesale occupation is enforced, or where a strong desire exists to gratify official prejudices in favour of the industrial in preference to the medical treatment of the insane. And even where occupation cannot be damaging, and might be advantageous, great forbearance ought to be shown in imposing it on those who are burdened by mental disease. In toothache and neuralgia occupation might perhaps promote recovery, and everyone knows that a game at chess has proved an anodyne during the pangs of gout. But who would think of sending a man in agony from a carious molar to hoe turnips, or insisting on a girl in a transport of *tic-douloureux* sitting down to darn a stocking? and who would dare to suggest a sewing-machine to the victim of podagra? Well, in many forms of insanity the suffering is certainly not less than in toothache, neuralgia, and gout—probably it is far greater, for it often impels to suicide, which mere bodily pain rarely does; and it would seem necessary, therefore, to be exceedingly cautious and gentle in calling for work from those who are in torture. The wise attitude to adopt with reference to the question of the employment of the insane would seem to be to admit its great importance in subordination to medical treatment proper, and to maintain that it can only be safely and wholesomely used in an asylum by a medical man who prescribes it in each case as he would a drug, specifying its nature and duration, and constantly watching its effects. Wholesale systems of employing lunatics are not only immediately oppressive and deleterious, but they must tend towards retrogression in the treatment of the insane generally, and to the abolition of that medical supervision of asylums from which all improvements in them have sprung. Educated medical men are not wanted to superintend farm work, and common taskmasters would soon take their place.

In contrasting the returns of the numbers of patients employed in different asylums, it is requisite to bear carefully in mind the position of the asylum, the character of the population from which its patients are drawn, and the forms of mental disease from which they suffer. The table of numbers employed should therefore always be read in connexion with those showing the proportion of admissions, readmissions, recoveries, deaths to the average resident population, the causes of death, causes of insanity, etc. In Scotch asylums, with a comparatively stationary population, enjoying immunity to a great degree from general paralysis and epilepsy, the proportion of patients employed ought, of course, to be much larger than in English asylums, in which acute cases and those formidable scourges, general paralysis and epilepsy, abound.

PORRO'S OPERATION.

DR. L. H. PETIT contributes to the *Archives Générales de Médecine* an excellent summary of the cases of Porro's operation which have been up to the present time put on record. This operation, as many of our readers will be aware, consists in the removal, after Cæsarian section, of the uterus and its appendages. The object of supplementing the Cæsarian section by this proceeding, is to prevent those events by which that operation so often proves fatal—hæmorrhage, uterine phlebitis, and peritonitis from gaping of the uterine wound and escape of secretions into the peritoneal cavity. It has also the advantage of preventing, in the event of recovery, another pregnancy from taking place; an effect which, in cases in which the Cæsarian section has been rendered necessary by deformity of a per-

sistent kind, is a most desirable one. The first to actually perform it was Dr. Storer, of Boston, U.S., but it was only done by him as a last resource, to check otherwise uncontrollable hæmorrhage after Cæsarian section. Porro, of Pavia, was the first to perform it with intention and deliberation, and recommend it to the profession for adoption, and therefore it justly bears his name.

The risk of Cæsarian section is very great. Statistics are quite misleading, from the tendency of operators to publish a case if successful, but try and forget it if fatal. Radford, of Manchester, collected statistics, according to which the percentage of deaths was 84 per cent. In Paris, every case for years has been unsuccessful. Dr. Harris, of Philadelphia, has got together a number of cases, from which he represents the mortality as being only 25 per cent.—a conclusion evidently affected by the fallacy to which we have alluded.

Up to the date at which Dr. Petit wrote, Porro's operation had been performed seventy-eight times. Porro began in 1876. In 1877, 7 cases were put on record; in 1878, 15; in 1879, 17; in 1880, 27; in 1881, 13—the latter number being probably as yet incomplete. Of these 78 operations 34 were performed in Italy, 14 in Austria, 8 in France, 8 in Germany, 4 in Belgium, 4 in the United States, and 1 in each of the following countries:—Switzerland, Poland, Holland, Turkey, Scotland, and England.

We need not discuss at length the indications for the operation, which are almost the same as for Cæsarian section. When the pelvis is so small that delivery cannot be effected even by embryotomy, Porro's operation is of course demanded. As to less degrees of pelvic contraction, we expect that English obstetricians will differ in opinion from their continental brethren, the rule of English practice being always to prefer the interests of the mother to those of the child. But as Porro's operation prevents the mother from any further child-bearing troubles, which embryotomy does not, it will probably be resorted to with less reluctance than Cæsarian section.

In performing the operation, the incision is made in the median line, in the same manner, and with the same precautions against hæmorrhage, as in ovariectomy. Its length, according to Budin, who has carefully measured the amount of space necessary, should be about six inches and a half. It is begun about three fingers' breadth above the pubes, and continued upwards, deviating from the middle line so as to avoid the umbilicus. Some operators prefer to make the incision higher up, so that its centre may correspond to the umbilicus. Müller, of Berne, has modified the operation by making a much longer incision, and bringing the whole uterus outside the abdominal wall before opening it—a proceeding which would certainly seem more violent, and likely, from several causes, to be more hazardous both to child and mother. The only cases in which it would seem possibly advantageous are those in which there is reason to think that decomposition of the uterine contents is going on, in which case Müller's operation would enable the escape of foul matters into the peritoneal cavity to be more surely prevented.

The uterus having been brought into view, it is opened, and the foetus extracted, in the same way as in the Cæsarian section. It is not necessary to remove the placenta, for the uterus, with the after-birth still within it, can easily be brought out of the abdominal cavity. Then the cervix is secured, either by transfixing it with a double ligature and tying separately each half, or by transfixing it with two needles and fastening a Cintrat's *serre-nœud* around it below the needles. The parts above the ligature are then cut away with a bistoury; the toilette of the peritoneum is attended to; and the stump is fixed in the lower angle of the wound. The intra-peritoneal method of dealing with

the pedicle has been advocated, but it has not as yet been attended with much success.

Of the 78 cases in which the operation has been performed, 35 ended in recovery and 43 in death. The most frequent cause of death has been peritonitis, which carried off 20 of the patients. Death was attributed in 3 cases to shock, and in 2 to septicæmia; in 3 it was due to hæmorrhage; 2 succumbed to tetanus, and 1 to cardiac embolism; 2 are said to have been dying at the time of operation. The causes of death in the remaining cases are not given. As to the children, out of 76, 14 were dead; 62 living; the fate of the others is not stated.

The figures we have given seem to show that this operation may be performed with a better prospect of success than the Cæsarian section; and that it therefore is an important step in advance.

REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD, 1880.

CONTINUING our notice of the official record of the Medical work of the Local Government Board for the year 1880, we find that the paper by Dr. Parsons "On the Sanitary Requirements of Cemeteries" is now published as a Departmental Memorandum. On this paper, the thoroughness of which was acknowledged in our columns when it was first issued, Dr. Buchanan remarks that it "is calculated to be of great value to sanitary authorities who propose, under the powers of the Public Health (Interments) Act, 1879, to provide their districts with places for the interment of the dead." Of the scientific investigations carried on by the Board during the year, we have already mentioned the inquiry made by Dr. Klein into the case of supposed "horse-pox," which was reported to have communicated "cow-pox" to heifers when inoculated into them. In addition to this, the Report includes Dr. Klein's further researches into the Minute Anatomy of the Lymphatics, and a short interim report from Dr. Thudichum on his investigations into the Chemical Constitution of the Brain. Dr. Klein's researches during the year under notice were extended to the lymphatics, the salivary glands, and pancreas. The report extends over sixteen pages of rather close type, and is explained and enriched by fifteen plates of well and clearly executed illustrations. Dr. Buchanan well remarks of these researches: "They now form a body of exact knowledge—much of it new, much of it in correction of previous observations—concerning that all-pervading system which, more intimately even than the bloodvessels, enters into the very idea of the structure of tissues and organs. It is difficult to foresee the whole importance of this more complete understanding of the anatomy of the lymphatic system, alike to the physiologist and to the pathologist." Of the actual or possible value and significance of Dr. Thudichum's researches, we do not feel inclined to judge or prophesy. Dr. Buchanan is content to observe that Dr. Thudichum continues to be engaged on these difficult and laborious studies, and he proposes to present at the end of the current financial year a systematic report on his researches up to that date.

Further, under the heading, "Scientific Investigations," Dr. Buchanan states that "some very interesting examinations of the significance to be attached to current methods of chemical analysis of potable waters have been made during the year. Samples of water were purposely polluted with one and another material, but especially with the stools of enteric fever patients, and were then submitted for examination by the chemist. Dr. Cory, to whom the inquiry has been entrusted, is not yet in a position to report on the whole results of it, but has already learned enough to show that these examinations were greatly needed, in correction of judgments

commonly pronounced about the wholesomeness and unwholesomeness of samples of water that have been the subject of analysis. The results will have frequent application in the Medical Department, where an opinion is often asked upon the inferences deducible from given analytical statements as to the composition of waters in use, or proposed to be used, for drinking." Dr. Cory, with needful chemical and microscopical assistance, was still, we are told, pursuing his researches. That was written in June last year—about nine months ago,—and as yet we have no further information on the subject. It would be difficult to imagine an inquiry of more importance to the profession and the public. Considering the incomprehensibly irreconcilable, not to say contradictory, analyses that are officially published every month of the Thames water as delivered by the companies,—and the statement now made by the Medical Officer of the Local Government Board that the judgments commonly pronounced about the wholesomeness and unwholesomeness of samples of water greatly need correction,—the public have a right to demand that the results of Dr. Cory's inquiry shall be made known as early as possible, instead of being delayed for months to satisfy the requirements of departmental routine.

The Report we have been considering furnishes, however, a striking instance of the way in which information of the most important character is withheld from the public by official secretiveness and red-tape reticence. The Medical Officer of the Board states that "during the year 1880 Dr. Thorne has been employed in an investigation into the nature of the arrangements that are provided in various localities for the isolation of persons suffering under infectious disease, who cannot be retained at their homes without danger to others"; that he has visited, with this object, many districts in which small-pox and fever hospitals have been established, and has "taken account of such evidence as has been forthcoming about the advantage of these hospitals in preventing the extension of disease, and about the injury to health supposed to have been done by the hospitals to inmates of adjacent houses; and that on the occasion of rumours of small-pox in houses near to the hospitals of the Metropolitan Asylums Board, and subsequently to 1880, Mr. Power was associated with Dr. Thorne for the purpose of investigating the facts as they concerned the neighbourhood of the Fulham Hospital. But not a word more is said on the subject. The law courts have been closing these hospitals on the ground of their being sources of infection; sanitary authorities and the general public are keenly concerned to learn the truth about them; it is known that Dr. Thorne and Mr. Power have finished the inquiry entrusted to them; and it is an open secret that the result of the investigation has not been favourable to the Metropolitan Asylum Hospitals, as hitherto managed at least; yet, notwithstanding all this, not only has no report been published, even of the earlier part of the investigation—that carried out by Dr. Thorne alone,—but the Medical Officer of the Board has not been permitted to give the slightest hint as to the tenor and significance of the outcome of the inquiry.

THE WEEK.

TOPICS OF THE DAY.

DR. ALFRED CARPENTER has recently addressed a letter to the Press on the subject of the various Bills at present before the House of Commons, seeking to deal with the compulsory notification of cases of infectious disease. He suggests that there is an imperfect knowledge among members of Parliament and town councils as to the way in which this desirable end should be attained, and he offers some remarks

which may prove useful to those who are now called upon to legislate in the matter. He points out that disease-prevention has been pressed upon the attention of the public mainly by the medical profession, who have laboured for many years in that direction with but little support from the higher authorities, and he protests against the responsibility which the Bills now under consideration seek to impose upon the medical attendant. He holds that, as we have always insisted, it should not be considered the province of a medical man to be an informer, and that to impose such a duty upon him would diminish his present claim to the unrestricted confidences of his patients, while it would certainly tend to cause householders who suspected the presence of contagious disease, and were unwilling to acknowledge it, to abstain altogether from seeking medical advice for the sick. The protection of the public would be best secured by rendering it compulsory on the householder or guardian, or other responsible person, to communicate to the local authority the outbreak of infectious disease, on the certificate of the medical man called to the case; but to endeavour to impose penalties on the latter for any infringement of this regulation would be manifestly absurd, since it would be far more effectual to secure him as a witness to prove that after delivering a certificate the necessary communication to the authorities had been withheld. Dr. Carpenter observes that the joint action would best be brought about by giving the person in charge of the patient a right to request the assistance of the medical man in making the disclosure.

Recently, at the Liverpool City Police-court, Ethus de Tomanzie, describing himself as a "licentiate in medicine of British India," and John Adams, who produced an American diploma, appeared to answer fifty summonses—seventeen against Tomanzie, and thirty-three against Adams—issued at the instance of the Liverpool Medical Defence Association. Adams deposed that he had paid £20 for his diploma, and was in the habit of answering certain questions that were sent to him through the post. He had never been in America. For Tomanzie it was admitted that he had no English qualifications. The first information proceeded with was against Tomanzie, for having, on May 28 last, unlawfully given a certificate concerning the death of Jane Heron, knowing the same to be false, contrary to Section 40 of the Births and Deaths Registration Act, 1874. On this charge he was committed for trial. For illegally using a medical title he was fined £5 and costs. The case against Adams was adjourned *sine die*.

At a recent adjourned inquest, held in a room in the Charing-cross Hotel, the Coroner, Mr. St. Clair Bedford, complained of the great inconvenience he was put to in the parish of St. Martin's-in-the-Fields. The Guardians would not allow him the use of their Vestry Hall when the person upon whom he was holding the inquest was actually lying in the mortuary under the church, and he was suffering from a similar difficulty in regard to the Charing-cross Hospital. He would not, however, complain of the latter, because he had not asked for an explanation from the authorities, although he intended to do so. What he had to complain of was, that he had for years been appointed to perform a most necessary and solemn duty, and the authorities endeavoured to drive him to a public-house to perform it—a proceeding he strongly deprecated. He considered it a shameful thing for a coroner to be treated in that manner in the nineteenth century. The jury quite agreed with the remarks of the Coroner, who concluded by thanking the South-Eastern Railway for their courtesy in lending him the room in their hotel. We entirely concur in the remarks of Mr. Bedford; and, as

we have frequently observed, it is simply a disgrace to the rich parishes of the metropolis that they persistently decline to provide proper buildings for coroners' offices.

The annual festival dinner of the Victoria Hospital for Sick Children, Queen's-road, Chelsea, was recently held at Willis's Rooms, under the presidency of the Prince of Wales. In proposing the toast of the evening his Royal Highness placed before his hearers in a very effective manner the claims of this institution to the support of the benevolent public. He instanced the fact that during the past year the in-patients had amounted to 537, and the out-patients to nearly 6000; but he regretted to have to say that, although the Hospital had been in existence for only sixteen years, its expenditure last year had exceeded the income by no less than £350. The charity also incurred an expense of £500 per annum in providing a Convalescent Home at Margate to help in the recovery of its patients. His Royal Highness, however, very justly pointed out the grievous condition of the out-patient rooms. We trust that his remarks will have the happy effect of leading to the prompt provision of new and well-ordered buildings for this department of the charity. In response to the appeal of the Prince, subscriptions to the amount of over £2500 were announced before the close of the proceedings, including £100 from the Prince himself.

The arrangements regarding port sanitary authorities would not appear to be satisfactorily established in the United States, if some particulars which have recently been reported here are correct. Intelligence from New London, Conn., under date March 17, states that the *Lilian M. Vigus*, Capt. Morne, from New York to Bristol, put into New London about March 2, with two cases of small-pox on board, one of these being the captain. City-physician Holbron was in daily attendance upon the patients until March 16 and 17, when all the boatmen of the port refused to go out to the vessel. The President of the Thames Tow-boat Company placed a tug at the disposal of the doctor, but no crew could be found to go near the infected ship. On the evening of March 17, the vessel signalled to the shore that medical assistance was wanted; but the signals could not clearly be understood, although it was surmised that it was intended to be conveyed that one of the crew had died. The report concludes by adding that efforts were being made to get assistance to the ship. If the facts be correct as transmitted, there must be great want of organisation at American ports, and an astounding want of belief in the protective power of vaccination. Such a state of things would be simply impossible in the old mother-country.

An application has been made to the Consistorial Court of London, before Dr. Tristram, Q.C., the Chancellor of the diocese of London, for a faculty to make certain improvements in the old churchyard of St. Mary, Haggerston. The curate-in-charge was called as a witness (the vicar being non-resident) in support of the application. It was explained that it was proposed to remove some of the grave-stones to effect improvements in the walks, and to plant the churchyard with trees and shrubs. The proposed alterations, it was submitted, would be a great improvement; it was a very old churchyard, and the latest gravestone was more than twenty years old. One of the churchwardens testified that he was present at the vestry meeting when the plans were discussed, and they were approved without opposition; it would be necessary, he said, to remove about forty tombstones. Dr. Tristram said, on the evidence adduced, he had no hesitation in granting the application for a faculty to make the alterations, which he considered would be desirable improvements in the old churchyard.

The Bill promoted for supplying spring-water in certain

of the south-western suburbs has been rejected by a Select Committee of the House of Commons, without even calling upon the opponents to give their reasons. The Bill—as we mentioned last week was likely to be the case—was strongly opposed in several quarters, especially by owners of mills on the Mole and Hogsmill Rivers, who feared that the flow of water in those streams, which depend for their supply to a large extent upon underground springs, would be impaired by the wells to be sunk in the locality, and pumped by the promoters.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

MONDAY in this week having been "the day next after Palm Sunday," a meeting of the Royal College of Physicians was held, as by statute required, for the purpose of electing the President of the College. The meeting was a very large one, and Sir William Jenner, the retiring President, was unanimously re-elected to that highly responsible and highly honoured office. Before returning, at the end of his first year's Presidency, the insignia of the office into the custody of the College, Sir William Jenner briefly reviewed the history of the College, and such matters as had especially concerned it, during the previous twelve months; including in his address graphic and admirable notices of the Fellows of the College who had died during the year.

A communication was received from the Home Office, asking the opinion of the College as to the need of any, and, if any, what, amendment of the law for restricting the sale of poisons. The matter was referred to a committee consisting of Drs. Southey, Moxon, Stevenson, Lauder Brunton, and Vivian Poore, for consideration and report. A very important and lengthy report of the Visitors of Examinations appointed by the General Medical Council was laid before the College, and referred to Drs. Fincham, Andrew, Braxton Hicks, Pye-Smith, and Gervis, for their remarks prior to the report being submitted to the Council. Dr. Wilks and Dr. Bristowe were appointed examiners for the Murchison Scholarship, with Sir Risdon Bennett as referee. The new by-laws and regulations were finally approved; and the old by-laws and regulations were repealed.

THE PROPOSED PARK FOR PADDINGTON.

WE regret to learn that the Paddington Park Bill has been rejected by the Select Committee of the House of Commons. Having overcome the objections raised to the scheme by the Metropolitan Board of Works, and gained the active approval and—a matter of vital importance—the financial aid of the Board, the promoters seemed to be well on the high road to success. It appears, however, that they seem to have been somewhat over-hasty in applying to Parliament for their Bill, and to have under-estimated the opposition that might yet be made to their project. It is understood that the promoters failed to convince the Committee that they had secured the pecuniary means for exercising the compulsory powers of purchase which they asked for by the Bill, and that a very strong opposition exists in all the parishes concerned against the local rate by which it was intended to raise the moneys still required to carry out the scheme. The proposed rate was certainly not a heavy one, and the sanitary advantages arising out of the new park would have been very great, but the ratepayers, *i.e.*, those of them who have taken the trouble to discuss the matter, animated by "an ignorant impatience of taxation," are hostile to the threatened additional burden. It is said also that the Select Committee held that a Bill of the character of the Paddington Park Bill should have been promoted by some responsible authority, such as the Metropolitan Board of Works, and not by private individuals. We fear the decision

of, and opinion expressed by, the Committee may prove fatal to the scheme for the park; as the chance of success seems to depend on the intervention of the Metropolitan Board of Works, or of some millionaire who may be moved to take the entire pecuniary burden of the project upon his own shoulders.

THE NEW LAW FOR THE ADMINISTRATION OF THE FRENCH ARMY.

THE *Gazette Médicale* speaks in desponding terms concerning the law which has just passed the Chamber of Deputies, after some eight years' delay, almost without discussion. "Everybody," it observes, "without excepting those who have had to defend the law in Parliament, admit its imperfections; but, tired out by the state of indecision which has so long prevailed, an imperfect result has been accepted. The point which interested the medical body was the autonomy of the medical military service; but while this autonomy has been acknowledged in principle by the new law, in practice it will not be found to exist. For, if in fact, the medical officers are only to be dependent upon their own hierarchical chiefs and the commanding officer, and if they are declared to have authority over the *personnel* of the hospitals and ambulances, having under their orders no executive agents whatever, they remain still on this point in a state of dependence on the Intendance. If the theatre on which conflicts may arise is somewhat more circumscribed it is far from having disappeared, and the contests may even become still more frequent, more violent, and more prejudicial to a satisfactory organisation."

ROYAL COLLEGE OF SURGEONS IN IRELAND.

At a meeting of the College, held on Monday, the 3rd inst., pursuant to the provisions of the supplemental charter, to elect an Examiner in Ophthalmic Surgery to examine candidates for the Letters Testimonial and Fellowship of the College, Mr. Henry Rosborough Swanzy, Bachelor of Medicine of the University of Dublin, and Fellow of the College, was duly elected to the examinership in question.

THE METROPOLITAN ASYLUMS BOARD.

At the meeting of the Managers of the Metropolitan Asylums Board held on Saturday last, a letter was read from the Local Government Board, calling attention to a communication from Messrs. Rennie, relative to the removal of the hospital-ships *Atlas* and *Endymion* from their present moorings. The communication stated that the small-pox epidemic had very much decreased, and asked at what date the vessels would be removed from their present moorings in front of, and only 270 feet distant from, their shipbuilding yard at Greenwich. They added that there was a suitable locality lower down the river, to which these hospital-ships might be removed. Another letter stated that, it having come to the knowledge of the Committee of the School-Ships Society that the small-pox ships were to be moored in Long Reach, just off the port quarter of the *Cornwall*, the Committee thought it most undesirable that such a position should be chosen, and they asked the Board to have the vessels placed in some other part of the river. On the motion of Sir Edmund Hay Currie, the letters were referred to the General Purposes Committee for consideration. The fortnightly return of small-pox cases gave the following results:—In Homerton Hospital, 2 patients were admitted, 1 died, 7 were discharged, and 5 remained under treatment. In Stockwell Hospital, 34 were admitted, 2 died, 37 were discharged, and 86 remained under treatment. In the ship *Atlas*, 26 were admitted, 3 died, 27 were discharged, and 104 remained under treatment. In Deptford

Hospital, 68 were admitted, 10 died, 57 were discharged, and 171 remained under treatment. The total for the fortnight ending March 31 was 130 admitted, 16 deaths, 128 discharged, and 366 remaining under treatment; as compared with 103 admitted, 17 deaths, 128 discharged, and 377 remaining under treatment in the preceding fortnight.

THE PARIS WEEKLY RETURN.

THE number of deaths for the twelfth week of 1882, terminating March 23, was 1287 (701 males and 586 females), and among these there were from typhoid fever 49, small-pox 13, measles 28, scarlatina 41, pertussis 5, diphtheria and croup 55, erysipelas 7, and puerperal infections 6. There were also 78 deaths from tubercular and acute meningitis, 254 from phthisis, 42 from acute bronchitis, 95 from pneumonia, 99 from infantile athrepsia (31 of the infants having been wholly or partially suckled), and 31 violent deaths (22 males and 9 females). The number of deaths is below the average of the last four weeks, and, in comparison with the eleventh week, there is a diminution of deaths from small-pox, scarlatina, diphtheria, and puerperal infections, and an increase from typhoid fever (49 in place of 30), measles, pertussis, and erysipelas. There were only 26 admissions into the hospitals for small-pox as compared with 71 for the week before, but the number of cases of typhoid fever had increased from 61 to 70. The cases of diphtheria were 32 in each week. The births for the week amounted to 1191, viz., 601 males (462 legitimate and 139 illegitimate) and 590 females (440 legitimate and 150 illegitimate): 116 infants were either born dead or died within twenty-four hours, viz., 62 males (38 legitimate and 24 illegitimate) and 54 females (35 legitimate and 19 illegitimate).

THE SELECT COMMITTEE ON ARTISANS' AND LABOURERS' DWELLINGS.

At the meetings held by the Select Committee of the House of Commons appointed to examine into the working of the Artisans' and Labourers' Dwellings Act, Dr. Gibbon, the Medical Officer of Health for the Holborn district, has lately been under examination. Dr. Gibbon objected to the scheme promoted by the Metropolitan Board of Works, known as Mr. Vigers' scheme. The operation of the 33rd section of it, in his district, had brought ruin upon numerous inhabitants. Costermongers, of whom there were about 1000 in Holborn, could not comfortably reside in artisans' dwellings, on account of the nature of their trades. They were now compelled to resort to the dilapidated houses in the neighbourhood. It would be a tax upon these people to compel them to live three or four miles away from their work. He drew a dismal picture of the effects of the Act. The dwellings in the neighbourhood had been sanitariously ruined, the people morally ruined, the respectable shopkeepers pecuniarily ruined and compelled to go into the Bankruptcy Court, in consequence of the demolition of property that had taken place. The regeneration of this class of property should not, he maintained, be left to private enterprise. The occupants of what were known as artisans' dwellings were frequently not of the poorer class at all, but respectable clerks who could afford to keep pianos in their rooms. Since the demolition of houses in Gray's-inn-road other adjacent streets have become overcrowded. It was urgent that artisans' dwellings should be immediately erected in Gray's-inn-road. Dr. J. W. Tripe, President of the Society of Medical Officers of Health, who was next called, was not much more encouraging; he referred to the artisans' dwellings in the Hackney Wick district, and condemned the bad bricks and mortar of which some of them were constructed. In Tottenham, he said, many of the houses were worse than those of Hackney

Wick or Clapton Park. He had seen some bricks used there which were undoubtedly made from refuse taken from cesspools. Last year about four-hundred of these houses were flooded by the overflow of the river Lea. Neither the Metropolitan Board of Works nor the water companies could interfere in the matter of these floodings. He was strongly of opinion that the local authorities should have some power to deal with the building materials used in these buildings, and to decide what sites should be utilised for the purpose. He admitted, however, that since the passing of the Building Act of 1878 there had been an undoubted improvement in the buildings in the district.

PROJECTED IMPROVEMENTS IN DUBLIN.

ON Monday, April 3, an inquiry commenced at the Council Chamber, City Hall, Dublin, before Mr. Cotton, C.E., Engineer to the Local Government Board for Ireland, as to the application under the Public Health Act for two loans, one of £50,000 for the purpose of making a new street from Dame-street, by Cork-hill, across Fishamble-street, to Christchurch-place; and the other of £1500 for the purpose of erecting pumping stations at the North Lotts, for the better sewerage of that district. Overwhelming evidence was given in favour of the construction of a new street to Christchurch Cathedral from Dame-street, whereby the steep ascent of Cork-hill and the narrow thoroughfare of Castle-street would be avoided. Dr. Charles A. Cameron, Superintendent Medical Officer of Health and Executive Sanitary Officer, deposed that portion of the buildings which would be taken down in order to form the new street was in an unsanitary state. Indirectly, as well as directly, the project would have a most beneficial sanitary effect. Some of the houses that were to be removed had been closed, owing to their unhealthy condition, and they had given great trouble to the sanitary officers. The people that would be dislodged by the new street could be accommodated in artisans' dwellings; but, no matter where they got accommodation, they could not go to a worse place than they at present occupied.

ACADÉMIE DE MÉDECINE.

At the last meeting of this learned body Dr. Bucquoy was elected into the Section of Medical Pathology, in place of the late Prof. Maurice Raynaud, by the votes of fifty-eight of the seventy-three Academicians present.

THE HOLSWORTHY RURAL SANITARY DISTRICT.

MR. LINNINGTON ASH, the Medical Officer of Health for the Holsworthy Rural Sanitary District (Devonshire), has just presented his eighth annual report on the health of the locality to the Sanitary Authority there. The number of births registered in the district during the period under notice (the year 1881) was 280, as against 275 in the previous year; and the number of deaths recorded was 150, as against 185 in the year 1880. The death-rate for the year was 16.6 per 1000 of the estimated population living, or 1 in every 60 persons, and is the lowest recorded during the past seven years. Of the deaths, 18 per cent. were those of children under five years of age, and nearly 50 per cent. were of persons aged sixty and upwards; 58 of the deaths, in fact, occurred in persons aged seventy and upwards, 22 were over eighty, and 2 had attained the age of ninety. Only one death is attributed to zymotic disease, a solitary case of diarrhoea occurring in a delicate child. Small-pox was introduced into the district from Lambeth, but as the sufferer was in a house in a very isolated position, and every precaution was taken, the disease was confined to this one case. Mr. Ash, in his report, regrets that there is no provision in

any part of the district for the isolation of cases of infectious disease, nor for the disinfection of houses, clothes, or bedding, and what is attempted to be done in this direction is effected in the most perfunctory and unscientific manner. The money spent on so-called disinfection is, he says, simply thrown away; and now that the district is free from zymotic disease would be the time, he thinks, for providing all the requirements for dealing with outbreaks of contagious disorders—such as a special hospital, and disinfecting apparatus, etc.

PROPOSED SANITARY LEGISLATION IN AMERICA.

THE Bulletin of the National Board of Health of Washington for February 25 contains a Bill about to be laid before the local legislature of Maryland for providing against the spread of infectious diseases. It is nothing more or less than an unacknowledged, though often *verbatim*, transcript of the portion of our own Public Health Act on the same subject. Even the defective 124th section, stands in the proposed Act without the extended definition of "proper lodging and accommodation" demanded by medical authorities in this country, viz., that such accommodation shall be deemed to be "proper" as admits not only of proper treatment of the individual patient, but of his *isolation* from other members of the *same* family. We should have thought the persistent recommendations of the Society of Medical Officers of Health and other bodies in this country must have reached our neighbours across the Atlantic.

PROFESSOR CORNIL.

CONFORMABLY to the last vote of the Faculté de Médecine, Dr. Cornil has been gazetted as Professor of Pathological Anatomy to the Faculté in place of Prof. Charcot. Prof. Cornil has consequently resigned his post of Deputy for Allier in the Chamber of Deputies.

SMALL-POX AND FEVER IN THE DEPTFORD HOSPITAL.

IN his annual report, presented to the Managers of the Metropolitan Asylums Board, for the year 1880, Dr. McCombie, the Medical Superintendent of the Deptford Hospital, has briefly sketched the arrangements made for treating small-pox and fever patients in the same building. On February 5, 1880, the first case of fever was admitted, and from that date to February 5, 1881, the admission of fever and small-pox patients continued, when it was found necessary to utilise the whole of the Hospital for the accommodation of those suffering from the latter disease. Six wards were set apart for the treatment of fever patients, the administrative block was used for the accommodation of the officers and the fever staff, and the permanent laundry was reserved for the fever side. At first four wards were set apart for small-pox, but the number had ultimately to be increased to six. The small-pox staff were accommodated in a ward fitted up with mess-room and cubicles, and a separate laundry was provided for the exclusive use of the small-pox side. The only parts of the Hospital common to the two sides were the kitchen, steward's stores, disinfecting-room, and mortuary. The distance between the acute small-pox wards and the fever wards was ninety feet, but small-pox convalescents slept in a ward thirty feet distant from the fever ward. There was a distinct subordinate staff for fever and for small-pox, and no nurse or servant was allowed to enter the side other than that to which she was attached. The stores and food were supplied to the two sides by different porters; all furniture, linen, etc., on the two sides were kept quite separate; and nothing was transferred from the small-pox side to the fever side without having undergone thorough cleansing. The

matron and steward performed their duties on both sides, but did not enter the small-pox wards, whilst the chaplain visited each side on alternate days. The assistant medical officer attended exclusively to the small-pox patients, and Dr. McCombie took the fever side and the general management. As a result, during the year six cases of small-pox occurred in the fever wards, but no case of fever occurred in the small-pox wards. These cases occurred, with one exception, in the wards furthest removed from the small-pox side; all six had been in the hospital over a month, and were being treated in different wards on the fever side. Dr. McCombie thinks that the origin of these six cases is obscure. That cases of small-pox should occur in a fever hospital is, he adds, not to be wondered at, considering the class of patients treated there; and the experience of the Homerton Hospital confirms that of Deptford, since during the latter part of 1880, and the beginning of 1881, fifteen cases of small-pox occurred in the Homerton Fever Hospital. But whether the infection was, or was not, carried from the small-pox side to the fever side, it remains that during the year under notice 500 cases of fever and over 500 cases of small-pox were treated at Deptford, with perfect immunity to the small-pox patients, and nearly the same to the fever patients, which proves that, with the precautions adopted, the two diseases may be treated on the same site, and, as regards the principal officers, with the same staff.

THE LATE SIR EDWARD B. SINCLAIR, M.D.

At a meeting of the King and Queen's College of Physicians in Ireland, held on Friday, March 31, the College unanimously resolved—"That the President and Fellows of the King and Queen's College of Physicians in Ireland desire to place on record their sense of the great loss which the College and the medical profession have sustained by the death of Sir Edward Burrowes Sinclair, King's Professor of Midwifery in the School of Physic; and hereby offer to Lady Sinclair and the other members of the late Professor's family their respectful and heartfelt sympathy in the irreparable loss they have sustained by his premature death, at a time when he seemed likely to add largely to the great benefits he had already conferred upon the medical profession and charitable institutions of Dublin connected with the branch of medicine which he had made his special study."

THE QUEEN has been pleased to approve of the appointment of Dr. D. J. Hamilton to the Sir Erasmus Wilson Chair of Pathological Anatomy in the University of Aberdeen. Dr. Hamilton will continue to teach his classes of Practical Pathology in Edinburgh throughout the summer session, so that he will not begin his lectures in Aberdeen until next winter session.

DR. HADDEN, Demonstrator of Morbid Anatomy at St. Thomas's Hospital; has recently been made a Corresponding Member of the Société Anatomique de Paris, on the nomination of Professor Charcot, the President.

MEDICAL PARLIAMENTARY AFFAIRS.

Awards to Medical Officers of the Army.—In the House of Commons, on Thursday, March 30, Mr. McCree gave notice that he would, after Easter, ask the Secretary of State for War the reasons why those medical officers of the Army severally recommended by Sir George Colley and Sir Evelyn Wood for honorary distinctions, on account of gallantry during the late war in South Africa, had not as yet received any official notice of the award which was due to them.

Coffee and Chicory.—On Monday, Mr. Chamberlain explained to Sir C. Lechmere that under the amended Sale of

Food and Drugs Act, coffee could now be imported mixed with chicory, but it could not be sold to the prejudice or detriment of health of the purchaser, or offered for sale as pure coffee, under a penalty of £50.

Lead-Poisoning.—On Tuesday, April 4, Mr. Burt referred to a case that died in Shoreditch Infirmary on Thursday last from lead-poisoning. Mr. Forbes, the medical officer of the Infirmary, was reported to have said that cases of lead-poisoning, fatal and otherwise, are of frequent occurrence. The deceased worked at a lead factory, where she had been engaged for ten months only. The nature of the work is very deadly. He had sixteen cases of lead-poisoning under his care in a few months. Married women who work in the factories absorb the poison, and give it to their suckling babies. Mr. Broadhurst also inquired whether the Factory and Workshops Acts were sufficient to give the necessary protection to the lives of the people engaged in these dangerous occupations. Sir Charles Dilke replied, for the Home Secretary, that a special report would be furnished by the Chief Inspector of Factories, and the suggestions of the jury would receive due consideration.

TRANSPORTATION OF DIPHTHERIA INFECTION BY THE WIND.

At the meeting of the Epidemiological Society of London on Wednesday, March 1 (Dr. George Buchanan, President, in the chair), Dr. Hubert Airy read a paper on "The Probability that the Infection of Diphtheria is sometimes Transported by Wind," of which the following is an abstract:—

If, as the result of the labours of the Royal Commission on Small-pox Hospitals, conclusive evidence should be forthcoming of the dissemination of small-pox by the outer air, it will become necessary to ask if other infectious diseases may not be spread in the same way. As regards *diphtheria*, the possibility of the disease being conveyed by the wind was first suggested to the author, in 1880, by an account given by Mr. Wynter Blyth of an outbreak at an isolated farmhouse on a hill near Woolfardisworthy, in North Devon, where, after careful investigation, first by Mr. Blyth, and afterwards independently by the author, no clue could be found to the origin of the disease, except in the fact that for five or six days before the outbreak the wind had been blowing strongly from the south-west, in which direction it was afterwards learnt that a death from diphtheria had recently occurred. Later in the same year the author met with another, even more suggestive, case near East Grinstead, in Sussex. Diphtheria broke out at an isolated farmhouse on a northern spur of Ashdown Forest, after the wind had been blowing from the Tunbridge district, where there had been much fatal diphtheria. The disease afterwards appeared successively on two hills to leeward of the farmhouse first attacked, without any traceable personal communication, whereas the shape of the ground favoured the idea of conveyance of the infection by the wind. For other instances the author refers to Mr. Blyth's paper on "The Prevention and Propagation of Diphtheria" (*Sanitary Record*, May, 1880, page 407), and Dr. Slade King's "Notes on the Spread of Diphtheria" (Exeter meeting of Sanitary Institute, September, 1880). An instance of diphtheria being caused apparently by the entrance into a house of air which had blown over an adjacent offensive midden, is reported in the *New York Medical Record* for January 22, 1881, vol. xix., page 92. In Southern Russia the spread of diphtheria is said to have followed the direction of the prevailing winds. The theory of aerial infection suggested by these picked cases requires to be tested by being applied to a large number of cases *not* picked, but taken as they come, rejecting none but such as involve doubt as to date of first attack, or as to precedent cases of sore throat in the same locality, or clear evidence of dependence on some other known mode of spreading. The question would remain for later examination, whether the evidence did not point to the existence of a class of *original* cases, occurring in certain favourable regions at a certain season of the year, showing no dependence on wind-conditions, but possibly due to some local malaria comparable to that of ague. Possibly, also, it might be found necessary to classify separately urban and rural outbreaks. Referring to the list of thirty outbreaks named in a previous paper (Transactions of the International

Medical Congress, 1881, vol. iv., page 69), the author described the mode of analysis adopted—comparing the direction and force of the wind during the fortnight preceding each outbreak with the direction of recent previous diphtheria, and noting the topographical features of each locality. For example, the outbreak at Coggeshall (No. 1 on the list) was preceded by fatal diphtheria at Braintree and Black Notley, six miles to the west and west-south-west; and on the fifth day before the outbreak the direction of the wind was west and west-south-west, and the wind was blowing at the rate of twenty-four miles an hour. In a quarter of an hour it might have wafted infective matter from Braintree or Black Notley to Coggeshall, which latter place, though not on a hill, is decidedly exposed to the force of a west wind. The analysis of these thirty outbreaks gives results favourable to the wind theory. The curve obtained by taking the mean, for the whole thirty cases, of the number of miles travelled by the wind in each day of the fortnight preceding the date of outbreak, shows a wind velocity above the average in the five days immediately preceding that date, and below the average in the eight days previous; and this appears to indicate a relation of some kind between the velocity of the wind and the occurrence of outbreaks of diphtheria. This indication might admit of various interpretations, but for the fact that in a large majority of the thirty cases there was an actual focus of recent previous diphtheria, from which the infection might have been brought by a wind which was actually blowing in the right direction at the right time. This makes it probable that the relation in question is a relation of conveyance by the wind of infective germs from previously infected places. This inference is confirmed by the test of applying arbitrary dates, with new wind-conditions, to the thirty actual local conditions of outbreak, and finding that they fulfil the requirements of the wind-theory only half as often as the real diphtheria dates. But if the theory were groundless the results ought to be very much the same with either set of dates. It must be confessed, however, that thirty cases are too few to base conclusions upon. Three hundred are wanted to eliminate all error. The preference of sporadic diphtheria for high bleak situations can hardly be explained, except on the supposition that the disease is caused by something that is wafted thither by the wind. Certainly hill-top dwellers are more likely than valley-dwellers to inhale a variety of particles carried at different levels in the air; and probably, if there be anything in the wind theory, exposed places are the most likely to give as well as to receive infection. The theory gains support from what we know of some other diseases—notably *ague*, which resembles diphtheria in its preference for certain localities, and for a certain season of the year; in its conveyableness by water; and in its origination independently of any previous case. *Ague* is certainly conveyable by the wind, sometimes to hill-tops several miles away. May not diphtheria be conveyed in the same way? Regarding *small-pox*, we are waiting for the publication of evidence. The author met with an instance (at Bourne Bridge, in Essex, in March, 1881) in which the variolous infection appeared to be conveyed a distance of 200 yards by the wind wafting the smoke and smell of some infected bedding that was being burnt. *Hay fever* may be mentioned as an ailment which, though not contagious, is yet a certain example of illness caused by the inhalation of particulate matter carried by the wind. The objection (Congress, 1881, vol. iv., page 90) that exposure of infection germs to air oxidates and destroys them, requires proof. If proved for one kind of infection it would not necessarily attach to another. The evidence for each infection should be considered on its own merits. The theory of aerial infection should not be regarded as opposed to, but as supplementing, established ideas concerning the spread of zymotic diseases. It seeks to explain phenomena which, without it, baffle all inquiry. We scarcely know enough about the state in which disease-organisms are given to the air to enable us to say what will become of them. Possibly the adult and growing ones may be killed and the germs left alive, as Professor Tyndall found to be the case with non-infectious bacteria exposed to a certain heat. Doubtless the duration of the exposure will in some cases affect the result. The wind theory only demands an average exposure of about half an hour. Those who suspect for the diphtheria organism the possibility of an independent life-history external to the human frame, will not regard

exposure to the air as more dangerous to this organism than it is to the *Bacillus malariae*. As to the probability of wide separation of the morbid particles in the air, in the first place we do not know that a single particle inhaled by a susceptible person may not suffice to cause the disease; and, in the second place, the separation may not always be so very wide, but in certain conditions of the air a cloud of germs may hang together and be drifted by the wind to the very door of the farmhouse on the hill.

In the discussion which followed, the President, Dr. Scriven, Dr. Squire, Inspector-General Watson, Surgeon-General Murray, Mr. Wynter Blyth, and Mr. Shirley Murphy took part.

FROM ABROAD.

PRE-PHYSICAL SIGN STAGE OF PHTHISIS.

THE *Philadelphia Medical Times* of December 17 contains a report of a paper read at the Philadelphia Medical Society by Dr. Eskridge bearing the above title, in which he observes that the prodromic symptoms of consumption may be divided into the subjective and objective, the former being very numerous, while the objective are few—viz., the pulse, respiration, and temperature.

I. *Subjective Prodromic Symptoms*.—1. *Appetite*.—This may be capricious or almost entirely lost, the individual never being hungry, and what is eaten being against the protest of the stomach. This condition is, however, the exception, and is much more frequently met with in anæmic young girls suffering from menstrual disorders than as a symptom of the ill-defined stage preceding phthisis. 2. *Indigestion* is rarely absent in those cases which are followed by a high temperature and considerable constitutional disturbance, and becomes more marked as the disease progresses. This may appear in various forms, and especially as vomiting of the portion of a meal a few minutes or an hour or more after eating, without feeling of sickness preceding or following the act. When this persists for some time in a person predisposed to tuberculosis, it should cause apprehension, and especially when there is (3) a gradual loss of flesh—a symptom, like the preceding one, rarely absent. In general, when a person with a fair appetite, under favourable circumstances, is gradually losing flesh, in whom no other apparent cause can be found than a predisposition to tuberculosis, this disease should be feared. 4. *Pallidness*.—It is only in the more slowly developed cases that this symptom is of any service in diagnosis. It differs from the swarthy appearance in cardiac weakness, and from the waxy look in renal disease. The conjunctivæ may become pearly, and the individual present a peculiar tight-skinned, bleached appearance, as if the blood is being gradually impoverished, and the subcutaneous fatty tissue absorbed. Add to this the evening blush, the hacking cough, the accelerated pulse, and the heightened temperature, and we have an array of symptoms which will excite the suspicion of the merest tyro. Yet the best expert, in a few cases, is unable to make a positive diagnosis from the physical signs present. Muscular weakness, tired feelings, and indisposition to exercise are usually associated, and are due to the same cause—lessened vital force. Anxiety and nervousness about themselves are also often prominent symptoms during the prodromic stage. The anxiety exhibited by an individual over various symptoms, thus early in the disease, contrasts strongly with the stolid indifference often shown later, when, despite every symptom to the contrary, the sufferer frequently persists in denying that he has consumption. 5. *Irregular Alvine Discharges*.—As a premonitory symptom this is most usually found in what is called “chronic phthisis,” the irregularity consisting, in some, in periods of diarrhoea alternating with constipation. During the diarrhoea the evacuations are frequent, but not large, and are accompanied by more or less pain or uneasiness. During constipation the patient is dyspeptic, and, feeling better during the attacks of diarrhoea, believes himself to be of a bilious temperament, and resorts to all kinds of purgatives supposed to have an action on the liver. 6. *Disordered Menstruation*.—Diminished and painful menstruation are of such frequent occurrence that they have

little weight in regard to the diagnosis of phthisis. Suppressed menstruation does not usually occur until the disease can be readily detected by exploration. When it takes place early, however, there is no subjective symptom of more importance. 7. *Aversion to Fatty Articles of Diet.*—This, upon which formerly used to be laid great stress, is not of much value as a symptom, so variable is the behaviour in different patients with respect to it. If of any value in early diagnosis of phthisis, it is limited to cases attended with a marked rise in temperature and considerable constitutional depression. 8. *Inability to perform the usual amount of Labour.*—In gradually developed phthisis this is usually a prominent feature before the lungs are sufficiently involved to allow of disease to be detected by exploration. The symptom is not of much importance in the shorter cases, whose marked constitutional disturbances come on suddenly. 9. *Activity of Mind.*—In slowly formed cases, the mind in the prodromic stages is frequently less vivid than in health, save in magnifying special ailments; and in some individuals of a despondent turn of mind, dulness has been a prominent symptom. Although, in some of the more chronic cases, the mind seems early in the disease blunted by over-anxiety for health, this is by no means always so, for some present, as an early symptom, unusual brightness of intellect. In acute phthisis, periods of one or two months immediately preceding the outbreak of the disease are often observed during which the mind is very active. 10. *Chest Pains.*—In no small proportion of cases these precede the physical signs of the disease by months or years, and, what seems strange, they are often complained of most on the opposite side to the one affected. However vague and shifting these pains are, they have a certain amount of significance when found in connexion with other symptoms of incipient phthisis. 11. *Hoarseness.*—This is often found in persons who soon show undoubted signs of consumption, the period during which it may precede the development of physical signs varying from months to years. According to the statements of Drs. Cohen, Seiler, and other laryngoscopists, many cases of tuberculosis may be positively diagnosed by a careful examination of the larynx before the skilled auscultator is able to detect any disease in the lung. 12. *Cough* is often the first thing that attracts the attention of the patient and his friends, antedating, in many instances, the physical signs by months or years. "I have not met with a single case of chronic consumption before the development of recognised physical signs which did not have some cough as a symptom, although it has been in some only a short hack or, as others express themselves, an occasional desire to clear the throat. Many who are little troubled with cough deny, in a general way, the presence of the symptom; but if such persons are closely questioned in regard to it immediately after rising in the morning, or after eating, or taking unusually active exercise, they will rarely fail to acknowledge that they have a slight cough at these times." 13. *Pulmonary Hæmorrhage.*—Contrary to the opinion of some good authorities, Dr. Eskridge does not regard this as a frequent premonitory symptom, having met with it occurring in individuals whose lungs presented slight physical signs of disease, or as a vicarious discharge, or as otherwise unassociated with tuberculosis.

II. *Objective Symptoms.*—1. The *respiration* is not of much importance as a prodromic symptom, for one lung may have become sufficiently involved to give rise to abundant physical signs without the respiration being much influenced. The only cases in which it becomes notably quickened during the prodromic stage are those of an inflammatory character running a rapid course. 2. The *pulse* is of far more importance in gradually developed cases; increased frequency and want of tone are the only abnormalities shown by the pulse at the early stage, just as is found in all persons of a lowered vitality. But when these phenomena are associated with other symptoms of phthisis, they must not be overlooked. In cases that are more decidedly inflammatory in their character, and especially in those that run a comparatively short course, the pulse gives undoubted evidences of severe constitutional disturbance before the lungs from physical signs can be said positively to be the seat of disease. 3. *Temperature.*—The following are the conclusions Dr. Eskridge has arrived at on this point after a very extensive investigation:—“(a) All cases of phthisis that I have seen early have been attended by a longer or shorter period of heightened temperature

preceding the development of physical signs. (b) The height of the temperature varies with the rapidity of the morbid action: and a sustained high temperature throughout the prodromic stage indicates that the disease will be of short duration, and *vice versa*. (c) As, after physical signs are present, there may be periods of lull when the thermometer will show a normal temperature, so during the pre-physical sign stage, after the temperature has been about normal for several days, there may be, for a variable time, marked remissions in the body-heat, or an entire absence of any febrile excitement. (d) An axillary temperature, sustained at 99° Fahr. for several weeks in a person predisposed to phthisis, should excite suspicion. (e) In rare cases the morning temperature for several days may be higher than the evening, therefore thermometric records, to be satisfactory, should be made at various times of the day, including morning and evening, and they should extend over a period of one to several weeks.”

The following are the concluding observations of the paper:—

“In the pre-physical sign stage of phthisis there is no one symptom on which we can rely to the exclusion of all others. In fact, all the available symptoms only make a diagnosis approximate in the absence of all physical signs of the disease. The utility of paying so close attention to the early symptoms of consumption may not be apparent to all if a positive diagnosis cannot be made by them. Everyone who has thoroughly studied this subject agrees that if anything can be done as a curative measure it must be done early, and that to wait, in many cases, for the presence of physical signs is to wait until just so much of the body as these represent is dead, and until the vital forces are so overwhelmed by the tubercular process that treatment can avail but little. When the lungs are examined, and found not to present the physical signs of phthisis, the physician—although there may be an array of suspicious symptoms—too frequently assures his patient that he can find no evidence of pulmonary disease; and one with his mind thus relieved of grave apprehensions continues a course of living which too soon hurries on the physical signs of a disease which should have been previously apprehended and perhaps prevented. All individuals seeking advice, whose general symptoms point towards consumption, although physical signs be absent, should be more carefully watched than those with fully developed phthisis; and if a given train of suspicious symptoms do not improve under the best hygienic and medical measures obtainable at home, a change of climate should be recommended for those who are able to avail themselves of it.”

RECTAL EXAMINATION FOR STONE IN CHILDREN.

Professor Volkmann observes (*Centralblatt für Chirurgie*, March 18) that the utility of the recommendation he formerly made in his “Beitrage,” of a bimanual examination of children for stone in the bladder, is now generally acknowledged. The examination is made under deep anaesthesia, with the abdominal walls in a state of complete relaxation, and the bladder containing little or no urine. Two fingers of the left hand are passed as high up as possible into the rectum, and with the right hand placed above the symphysis, pressure is made over the bladder towards the fingers in the rectum until both hands meet. In children we can in this way “palpate” the whole of the bladder, and discover quickly even small stones. The measuring of the size of a stone, however, requires (in spite of its being so easily felt by the fingers of both hands, gliding here and there) much practice and experience; and at first Professor Volkmann often found himself deceived in estimating the size, generally taking the stone for less than its future removal proved it to be. Later he has found out a more certain method of ascertaining the size by direct palpation. The stone is raised by the co-operation of the fingers in the rectum and the hand on the hypogastrium, so as to lie on the pubes, and is then kept firmly there by means of the right hand. It can then be easily grasped all round, and if the stone is not too large, it can, together with the integuments, be raised sufficiently high to admit of an elastic ligature being passed around it—not that this could ever be used as a mode of extracting a calculus, but it is possible that it might be available for the removal of very movable tumours of the bladder, occurring in the form of a

papilloma or myoma with a long pedicle. In his last four cases of stone in children, this dislocation of the calculus on to the pubes, and surrounding it with the fingers, have been easily accomplished; the stone in one of the cases being as large as a chesnut. In the adult this manipulation could only be performed when the individual was exceptionally lean and the integuments very thin.

REVIEWS.

The International Encyclopædia of Surgery. By Authors of Various Nations. Edited by JOHN ASHURST, jun., M.D., Professor of Clinical Surgery in the University of Pennsylvania. Illustrated with chromo-lithographs and woodcuts. In six volumes. Vol. I. London: Macmillan and Co. 1882. Pp. 717.

THE international character of this elaborate work, edited from Philadelphia, hangs, as regards Vol. I., upon the somewhat slender thread of an *ex parte* article by Professor Stricker on the Pathology of Inflammation, an article by Professor Verneuil on Constitutional Diseases in their Surgical Aspects, and two short articles by London surgeons of the younger generation. The co-operation of the French and German authors has probably been invited in that spirit of deference which a practical people is apt to manifest towards those who give themselves to research in a more formal way, and the London contingent of contributors has probably been enlisted for business reasons. Whatever may have been the motive of its international title, the work is essentially a production of the United States; and there can be no doubt, in the mind of anyone who goes through the volume carefully, that the articles of American origin are distinguished for their general high quality, and more particularly for those qualities that are essential to the success of an encyclopædic publication.

The volume opens with Professor Stricker's article of sixty-three pages on "Disturbances of Nutrition: the Pathology of Inflammation." This article, both in its arrangement and in its details, is a tolerably close reproduction of the chapters on Inflammation (chapters 11-20) in the same author's "Vorlesungen über Allgemeine und Experimentelle Pathologie," Vienna, 1877-78. The handling of the subject may be described as being anything but international. Interesting and authoritative though it be as an exposition of Professor Stricker's own somewhat polemical point of view, and as a compilation of his own and his pupils' necessarily limited range of original ideas and observations, it is nothing as an encyclopædia-article. We are not even sure that it is always characterised by fairness as an *oratio pro domo*. It may well be, as Professor Stricker alleges, that "the migration-theory [of Cohnheim] has proved to be fruitless. It has made no progress since 1867, and in regard to the doctrine of inflammation it cannot make any progress, for it denies the active processes." But his own advances on the well-grounded inflammation doctrine of the Cellular Pathology are not quite appreciable to an average plain-minded man. The chief new points are the contractility of the capillaries (generally questioned), the changing relation of cells to intercellular substance, and the power of assuming embryonic characters which the tissues possess in general. But a careful perusal of Virchow's third chapter will show that the doctrine of embryonic tissues is new only in name, and that Virchow had expressly avoided the use of the word "embryonic." The following passage, on the elasticity of "yellow elastic fibres," is perhaps more remarkable for its courage than for its common-sense:—"In general, we do not know whether the elastic substances of the organism possess any elasticity worth mentioning. We must not be deceived by the name 'elastic'; the fibres have been called elastic because the filaments of a torn end curve inward like elastic springs; but we do not know if these fibres are distensible like caoutchouc. I do not even consider it at all likely. The researches of Spina show that the elastic fibres are cells which have become old and resistant; cells (or processes of cells) which, in inflammation, again become as soft, as mobile, and as capable of proliferation as young cells of the embryo. There is no reason for considering the cells which have become resistant to be more distensible than the other tissues. I regard it as more likely that the artery, as a whole, possesses a certain degree of elasticity, and that it,

in toto, possesses a power to contract after a certain distension, as soon as the pressure or tension relaxes."—(Page 5.) He who calls in question the fundamental properties of matter is a philosopher indeed. We should not on any account be deceived by the name "elastic," but we should none the less give heed to the thing. The researches of Spina are all very well, but most of us have found out by our own humble senses that the physical property of elasticity resides in those structures of the body where yellow fibres do most abound. A piece of artery, carotid or iliac, is plainly enough elastic when tested by the hand in the ordinary way; and if it be said that it is elastic only "as a whole," then is the ligamentum nuchæ of the giraffe also elastic as a whole, or is it simply elastic? These are subtleties that cease after a time to have any interest for the public mind.

The great subject of Inflammation is not left, however, to Professor Stricker's sole handling. The article "Inflammation," by Professor Van Buren, of the Bellevue Hospital Medical College, New York, is a distinguished performance. We venture to say that nothing better on inflammation has yet been written in our common language. The author has the true philosophical grasp, as well as an abundant supply of terse and pointed observations from every-day practice. He has also an admirable style, and he is uniformly attentive to precision in the use of terms; nothing better could be wished in the way of lucid description and exposition than the passage relating to healing "by the first intention" (page 110). The perusal of this article leaves that indefinable impression of contact with an able personality, who handles his subject in a satisfying way. In the unsettled region of new facts and notions, he is fair, both in statement and in the critical estimate. To single out one of several instances—that of inflammatory fever—we find that due prominence is given to three alleged material causes of the fever: the infective quality of the products of inflammation, a poisonous "sepsin" due to putridity, and micro-organisms; but he does not think that any one of these excludes the others in the general causation, and he gives reasons for still retaining the old doctrine of nervous influence in the causation, side by side with the material causes, which have almost exclusively engaged the attention of surgical pathologists in recent years. And the consideration for the variety of opinion, of which the above is an example, does not take the form of a colourless abstract, but it consists in the exercise of a masterly faculty of criticism.

The article on Erysipelas, by Professor Stillé, of Philadelphia, is also of the satisfactory kind; it includes an elaborate discussion of the causes of the disease from various points of view, a description of its varieties in degree and in locality, and a full critical handling of its treatment. Pyæmia, in the hands of Professor Delafield, is treated of without much unity of conception, probably because such unity is unattainable. The article by Dr. W. S. Forbes, on Hydrophobia and Rabies, Glanders, and Malignant Pustule, belongs rather to the class of intelligent compilations. Mr. Butlin commences his short article on Scrofula and Tubercle with the remark that "scarcely any task in medicine is now more difficult than that of writing clearly on scrofula and tubercle," and he takes the wise precaution of introducing a few clinical histories, by which to steer his doubtful way. Professor J. Lewis Smith, of New York, is the author of the article on Rickets; as regards the pathology, he inclines to the belief that "the rachitic, like many other pathological processes, does not result from a fixed and uniform cause, but from causes which vary to a certain extent in different conditions." This article is the only one in the first part of the volume that is adequately illustrated; we must take exception to Fig. 12 (page 265), as giving a very rough and incorrectly drawn picture of the rosary-like line of swellings at the costal ends of the ribs. Surgeon-General Wales, M.D., of the United States Navy, writes with sound knowledge and authority upon scurvy. The interesting subject of "The Reciprocal Effects of Constitutional Conditions and Injuries" has been assigned to Professor Verneuil. The article is comprehensive and philosophical, not to say metaphysical. The statement that "some cancerous subjects present only a single tumour, others have several cancerous deposits scattered over various parts of the body; sometimes the morbid masses are situated in the external parts, the limbs or walls of the splanchnic cavities, sometimes they occupy the viscera or deep paren-

chymata," is not suggestive of clear ideas as to what is primary and what is secondary in the pathology of that disease.

On Endemic Hæmaturia of Hot Climates, caused by the Presence of Bilharzia Hæmatobia. By F. H. H. GUILLEMARD, M.A., M.D. London: Baillière, Tindall, and Cox. 1882.

IN this thesis Dr. Guillemard has given an interesting and well-arranged review of most of the leading facts which are upon record with regard to the presence of bilharzia in man and the lower animals. He has travelled in Natal, in some parts of which, especially in Pietermaritzburg, many suffer from the presence of this parasite. He cites the evidence of Dr. Batho (Army Medical Reports, vol. xii.) to the effect that it seems as if the majority of the male youth of that place suffer from it. Upon this Dr. Guillemard remarks: "I have no hesitation in saying that this is an exaggeration, though I am personally well aware of its tolerable" [intolerable?] "frequency in that town. I have never met with a case in the interior, nor did I find that any of the old Zambesi hunters whom I questioned were acquainted with the disease, though they are generally keen observers."

This narrative is prefaced by a type case of bilharzia hæmaturia, which the author came across while travelling in Africa in the years 1877-78, and which he has watched from its outset. The narrative is interesting, although the case was unfortunately complicated by a violent attack of acute inflammation of the whole tract of urinary mucous membrane, which is attributed to an iodide of potassium injection. The observation of the products of the helminth, upon examination of the urine, is recorded with great care. We believe that bilharzia has not been discovered among the numerous parasitic pests of the East Indies; but the presence of the filariæ of chylous urine, which were discovered by Wucherer of Bahia in 1866, and again by Lewis of Calcutta, in urine and in blood, in 1870 and 1872, in bilharzia patients is a very interesting point, which demands further research. In his valuable address to the Epidemiological Society on the Relation of Filaria Sanguinis Hominis to the Endemic Diseases of India, which appeared in our journal early in 1879, Sir Joseph Fayrer mentions that, in 1876, Dr. Sonsino demonstrated to him in Cairo the filaria which he had discovered in the blood of a young Egyptian-Jew suffering from bilharzia hæmaturia in 1874. In addition to this case, Dr. Guillemard contributes the following interesting observation. It is the only instance in which he has examined the blood of a bilharzia patient:—

"In May, 1881, I first examined the blood of the type case described at the commencement of this paper, and though not successful in the first two or three slides, I eventually discovered a single specimen of the larval filaria, and on the following day some four or five others. Although I had never before had the opportunity of seeing this minute nematode, I had no difficulty in recognising it from Cobbold's and Sonsino's figures. From the absence of the patient abroad, and various other causes, I was unable to make further examinations of the blood until November, when, to my astonishment, a careful search, on five separate evenings, was attended by an absolutely negative result. To what to attribute the absence of the filaria I scarcely know. Sonsino's non-success may have been owing to the hour at which he examined his patient, as at that time (1874) he must, of course, have been unaware of the nocturnal habits of the hæmatozoon—a possible source of error which was carefully eliminated in my own case, in which the examinations were made at or about midnight."

If Dr. Guillemard's patient be right in his belief that he can, at times, feel the movements of this large parasite in the urethra, it seems probable that it might be seized by an instrument adapted from the lithotrite.

APHTHOUS SORE MOUTH OF INFANTS.—Prof. Wallace recommends the following:—℞. Sodii sulphiti gr. xxx., glycerinæ, aquæ, aa ʒss. To be used with a swab every two hours. Scrupulous cleanliness is required when a sucking-bottle is used. The rubber nipple should be turned inside out after each time of using, washed clean, and kept in a solution of baking-soda until wanted again. It is better to have two nipples, and to use them alternately. Milk must not be allowed to remain in the bottle until it becomes sour. —*Louisville Med. News*, March 11.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 21.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

ADDISON'S DISEASE.

DR. CREIGHTON (on behalf of Dr. Coupland and Dr. Fowler) read the report of the Committee which was appointed to consider Dr. Goodhart's specimens of Addison's disease. They stated that the capsules were much atrophied, and that the ganglia did not present any pathological alterations.

SPINDLE-CELLED SARCOMA OF EPIDIDYMISS.

MR. EDWARDS showed this specimen, which he had removed from a boy. The tumour was confined to the epididymis; it was growing rapidly, and consisted microscopically of spindle cells; the tubules of the testis proper were healthy. There was no glandular enlargement; but he was quite prepared to see secondary deposits at no very distant period.

MR. BUTLIN referred to the rarity of such cases, and agreed as to the probable recurrence in the above case.

THE PRESIDENT inquired whether there was any history of syphilis, and related a case in which under mercury a cure had been effected.

MR. EDWARDS replied that there was no history of syphilis in his case.

VARIOUS ABNORMALITIES OF THE ALIMENTARY CANAL.

DR. NORMAN MOORE showed a large number of specimens, illustrating various abnormalities. 1. An œsophagus, from the anterior wall of which, at a point a little below the end of the trachea, a diverticulum as large as a pea protruded. The specimen was removed from a man aged forty-nine, who, for five months before his death (of bronchitis), had suffered from some discomfort after eating. At the post-mortem examination the stomach was found to contain three minute ulcers, and the duodenum one deep ulcer as large as a fourpenny-piece. That simple duodenal ulcer was a rare affection was shown by the fact that only two such cases had occurred at St. Bartholomew's Hospital in the last fifteen years. As to diverticula of the œsophagus, Quain and Sharpey regarded them as hernial protrusions; but Dr. Moore was inclined to think that they were foetal abnormalities, of the same age and nature as the normal diverticula of the œsophagus, from which the lungs were developed. 2. Eight examples of diverticula from the ileum. In all the examples, the diverticulum was situated within four feet of the ileo-cæcal valve; the diverticula varied much in size, the largest being six inches long, and as wide as the ileum itself. Three of the specimens showed a marked constriction of the gut at the origin of the diverticulum—i.e., on the ileo-cæcal side. Meckel attributed this abnormality to a persistence of part of the omphalo-mesenteric duct; and the fact that the sacs showed tubular glands and epithelium, similar to those of the ileum, confirmed the view that they were derived from the hypoblast. At St. Bartholomew's Hospital, twenty-seven examples had been found in 3200 post-mortem examinations; and, in one-third of the cases, the abnormality had been the cause of fatal obstruction. This was produced in three cases by narrowing of the intestine at the origin of the diverticulum; by adhesion of the tip of the diverticulum to the mesentery in three cases, to the umbilicus in one, to an uterine tumour in one, and by the coiling of a fibrous band (proceeding from the diverticulum) round the ileum in one. The symptoms of obstruction in these cases usually began gradually, but not always. 3. The cæcum of a man aged sixty-eight, which was without any vermiform appendix, and terminated in a long fibrous band like the cæca of most of the Felidæ. 4. A specimen in which a small lobule of liver-substance was attached to the gall-bladder, and by only a long pedicle to the liver.

DR. COUPLAND had constantly met with such cases in the post-mortem room, but he only knew of two cases in which they had led to serious trouble. He was, therefore, rather surprised at Dr. Moore's experience. There was generally a small mesentery, and it was this which in his cases had been the cause of the strangulation. He referred

also to some curious cysts which had been described lately in connexion with such diverticula (entero-cystomata, so-called), having a similar structure, and probably a similar mode of origin.

Dr. CRBRIGHTON had seen a cyst containing blood, which he imagined had apparently arisen in the vitelline duct.

The PRESIDENT remembered seeing a diverticulum with the same pathological changes as in the small intestine in a case of typhoid fever.

Mr. SHATTOCK inquired whether the œsophageal case would not be better described as a hernia of the mucous membrane.

Dr. MOORE replied. He admitted the justness of Mr. Shattock's criticism. There appeared, however, to be muscular fibres; but the question could only be settled by microscopic examination.

SARCOMA OF TONSIL.

Dr. SAMUEL WEST said the specimen was removed from a woman aged seventy-four years, who had come under his care for "sore throat." The right tonsil was the seat of a large tumour; it was rapidly increasing in size, and displacing, but not invading, the tongue and adjacent structures. She died within five months of its commencement. The lymphatic glands of the neck were all much enlarged. A large secondary growth was found between the spine and the spleen, and smaller ones elsewhere. Microscopically, the tissue was found to be a small round-celled sarcoma.

Mr. BUTLIN said he had only tabulated cases which had been examined microscopically. Dr. West's case was remarkable as not involving adjacent structures.

Mr. EVE thought the case should be regarded as, and called, lympho-sarcoma: that would explain the rapid infection of so many glands.

Dr. WEST then briefly replied.

TRAUMATIC ABSCESS ON SURFACE OF LIVER.

Dr. F. C. TURNER read a paper giving notes of this case, and also showed specimens. The specimens exhibited were the liver and colon from a patient of Dr. Sutton's, who died in the London Hospital in July last. The liver showed a large area of superficial erosion on the upper surface of the right lobe, in the centre of which was a cup-shaped excavation of the liver substance, with thick fibrous base and elevated border. In the left lobe was a larger abscess-cavity, opening on the upper surface, and deeply excavating its substance. The abscess-wall anteriorly was thick and fibrous. The colon showed an extreme degree of ulceration of dysenteric type, and of late occurrence. The patient, a ship's painter, aged thirty-nine, had hurt his back in a fall five or six weeks before his admission to the London Hospital, on May 24, 1881. He did not lay up. A fortnight later he went to a doctor on account of the pain in his back and diarrhœa. When admitted into the hospital he was very ill and complained of pain in both hypochondria. There was pyrexia, and indications of abscess in the right lobe of the liver, which was explored without result. After his admission the evidence of abscess in the right hypochondrium became distinct, and on July 6 two pints of pus were removed from this region. During the night of July 7 profuse diarrhœa came on, and continued up to the patient's death on July 15. The patient had been in various climates, and had had an attack of ague sixteen days before, but no other illness. At the autopsy, adhesions were found between the diaphragm and each lobe of the liver. On separating them a large quantity of pus escaped on the right side from an extensive abscess-cavity between the liver and diaphragm. The organ when removed presented the appearances above described. No other organs excepting the colon presented important lesions. The ulceration in the bowel was limited by the ileo-cæcal valve. The situation of the suppuration in the liver-substance at the upper surface of the organ, and symmetrically in the two lobes, concurred with the history of the case in indicating the traumatic origin of the lesion. In the fall on the back the weight of the organ probably caused it to bend upon itself upon a transverse axis, with the result of causing slight cracks at the convex upper surface, with the subsequent formation of abscesses, owing to the continued movements of the patient, and possibly to other unfavourable circumstances. It seemed probable that at a later date some incautious movement of the patient caused the formation of the large abscess between liver and

diaphragm on the right side from the extension of a previously limited abscess between them. The rarity of abscess of the liver from injury is shown by the fact that in the *Transactions* of the Society only one case was found referable to such a cause. In Ziemssen's "Cyclopædia" only twelve such cases are mentioned. The occurrence of quite recent ulceration of the colon of dysenteric type, in conjunction with suppuration in the liver of much older date, would appear to be relatively frequent amongst cases in which these two lesions are found associated. This was so in three out of four cases of this kind, which Dr. Bristowe met with in 1500 inspections at St. Thomas's Hospital, and which he has recorded in the ninth volume of the Society's *Transactions*. That, in such cases, the ulceration of the colon may have been caused by the passage of some of the contents of the hepatic abscesses into the hepatic ducts, and thence into the intestines, is not generally admitted by pathologists. The alternative supposition, however, that the two lesions are independent effects of the same toxic agent, is less satisfactory where, as in the present instance, the primary lesion is referable to an injury. In two of Dr. Bristowe's cases it was noted that branches of the bile-ducts of considerable size were found freely open in the abscess-wall, and in one of these cases the motions, which were natural up to the day before that on which the patient died, then became very foetid and contained a quantity of pus; and this change of their character occurred on the second day after four pints of pus had been let out from a large hepatic abscess. In the present case also the severe and ultimately fatal dysenteric symptoms appeared the day after the abscess in the right hypochondrium was relieved; and in this case also I found that water injected into the left hepatic duct flowed out freely from a point in the ragged wall of the abscess in the left lobe. It has been said that the presence of irritative matters in the biliary secretion cannot account for ulceration of the colon, unaccompanied by similar changes in the small intestine. But in the case of chemical irritants, such as some mercurial salts, their corrosive action may be found only in the colon and lower end of the ileum; and in the case of septic matters discharged from an abscess in the liver into the bile-ducts, and so mingled with a secretion having antiseptic properties, it might be expected that their effect would be further delayed, and that their comparatively rapid and unopposed passage through the small intestine might be effected without injury to it.

Dr. MACKENZIE thought traumatic abscess of liver very rare; it was doubtless because the liver was protected by the ribs. He had had one case; the abscess was opened, and the patient did well.

Dr. MOORE said in cases of retro-pharyngeal abscess which burst, considerable quantities of pus must be swallowed; he was not aware that ulceration of the intestine ever resulted. There was wanting much evidence before Dr. Turner's view could be adopted. The abscess of the liver and the dysentery were more probably the result of one and the same cause.

The PRESIDENT had thus far generally accepted Dr. Budd's view, that the abscesses were secondary to the ulcerations.

Dr. TURNER replied: He meant to say that the bile delayed the septic condition, and hence the ulceration was only found in the latter part of the intestinal track.

HÆMORRHAGE INTO CEREBRAL TUMOUR.

Dr. ORMEROD showed these specimens. They were sections of the brain of a man who had come under the care of Dr. Buzzard with paralysis of the right arm. He subsequently got convulsive movements of the right hand, then became stupid, and finally aphasic and paralysed on the right side. He died in three weeks. The autopsy revealed presence of hæmorrhage, and a tumour which might easily have been overlooked. The brain was prepared by Pitré's method. The sections passed through the ascending frontal and parietal convolutions respectively. There were (1) a cavity above and to the outer side of the corpus callosum, not invading the ventricles or basal ganglia; (2) an area of blood-staining; and (3) in the frontal section the brain-substance appeared broken up and infiltrated with blood.

ICHTHYOSIS LINGUÆ.

Dr. SANGSTER showed a patient who was the subject of ichthyosis of the tongue, as originally described by Mr.

Hulke. The patient was a middle-aged man, tolerably healthy, but probably a high liver, and certainly a great smoker. He had frequently been in the way of venereal disease, but there was no certain history of syphilis forthcoming. On the right half of the dorsum of the tongue was an elongated creamy-white patch, standing out in bold relief from the surrounding mucous membrane. The patch was made up of hypertrophic papillæ covered with epithelial *débris*; the mucosa was not thickened. Over a roughly corresponding area on the left side the surface of the tongue was smooth to sight and touch, and presented a milky cast of colour. The patient had had the patch ten years; it gave no inconvenience. Some microscopical sections were shown from a case where epithelioma had supervened upon chronic smooth white patches on the tongue. The sections showed the mucous membrane over the patches to be quite bare of papillæ. The epithelium was divisible into two layers, and approximated in type to epidermis. The mucosa was twice or three times its normal thickness and sclerosed. Beneath the Malpighian layer were many lacunar spaces, ante-mortem, and most probably due to a breaking away of the tough epithelium from the sclerosed mucosa as it was drawn upon by the muscles beneath. The author thought that this tendency of the epithelium to become detached contributed to the superficial ulceration so frequent in those cases. Such cases as the one from which the sections were taken had been described as ichthyosis or psoriasis of the tongue; but microscopical demonstration proved the absence of any such condition. To show the discrepancy in the descriptions of the local characters, the author had drawn up a tabular statement of forty-four cases which had been reported by authors as ichthyosis or psoriasis of the tongue. On analysing the cases, it was found that only one case occurred in a female; 30 per cent. eventuated in epithelioma. Of the forty-four cases, twenty-three occurred in smokers, fifteen of the twenty-three being mentioned as inveterate smokers. In only twelve cases was there proof positive or strong evidence of syphilis; so that, making due allowances, it is probable that a large residuum of these patients were non-syphilitic in origin. This fact, and the unsatisfactoriness of specific remedies, should modify the treatment these patients generally receive. The descriptions of the surface of the tongue varied, but tended to group themselves round three types. First, there was the group represented by the patient shown, a plaque or defined area of hypertrophic papillæ, the mucosa beneath not thickened. Next there was a group represented by the case from which the sections were taken: a localised or diffused leathery condition of the mucous membrane; smooth, bluish-white, perfectly bald of papillæ, resisting to the touch, pinched up with difficulty. Lastly, there was the group, by far the largest, where the two foregoing conditions seemed to be combined, the mucosa being thickened and covered by hypertrophic papillæ and epithelial *débris*, in some cases by masses of horny consistence. In these tongues the dorsum is divided up into a number of quadrilateral spaces by antero-posterior and transverse fissures. The whole of the affected surface has an opalescent appearance, as if it had been painted with a solution of nitrate of silver. Cases forming the last group are most likely to be of syphilitic origin. Of non-syphilitic cases, some might be due to local irritation alone, smoking, etc., or this cause might be sufficient in an individual possessing some predisposing diathetic condition, such as gout, or that tendency which predisposes the individual to the development of eczema or psoriasis.

COMPARATIVE PATHOLOGY.—TUBERCULOSIS IN AN ELAND.

Dr. CREIGHTON showed this specimen of bovine tuberculosis. He agreed with the majority of pathologists in regarding the vomica as the result of tubercular nodules which had broken down and been got rid of. Virchow, on the other hand, regarded them as bronchiectases. The specimen was chiefly interesting as showing that "bovine" tuberculosis might occur in ruminants, and Dr. Creighton thought the explanation was to be found in its communicability.

CARD SPECIMENS.

Mr. SHATTOCK—A Cystic Condition of the Brain.

Dr. S. WEST—Necrosis of Epiglottis and of Right Arytæoid Cartilage, with Ulceration of Vocal Cord, from a case of typhoid fever.

Mr. DORAN—Horny Growth from the Neck.

Dr. TURNER—Membranous Laryngitis, Tracheitis, and Bronchitis, Emphysema; four weeks after Scarlet Fever.

Mr. LUNN—Carcinoma of Pyloric End of Stomach.

Dr. ANGELL MONEY—Early Caries of Sacrum.

Mr. MORGAN—Loose Sequestrum in Neck of Femur.

Dr. NORMAN MOORE—Chronic Rheumatic Arthritis in a Dog.

Mr. HUTCHINSON—(1) Tumour of Testis in an Infant aged five months; (2) Degeneration of Kidneys in a Lamb.

The Society then adjourned.

OBITUARY.

SIR EDWARD BURROWES SINCLAIR, A.M., M.D.

UNIV. DUB., M.A.O. (HONORIS CAUSÂ) UNIV. DUB., ETC.

THIS distinguished member of the profession died at his official residence, as head of the Vaccine Department of the Local Government Board for Ireland, in Upper Sackville-street, Dublin, on Friday, March 24. Sir Edward had been in failing health for several months, and occasional attacks of partial paralysis foreshadowed the fast approaching close of a life of usefulness and well-won honours. Although he looked much older, his age at the time of his death was only fifty-seven years.

Sir Edward Sinclair was the son of a well-known clergyman, and was born in Dublin towards the end of the year 1824. He was educated in the University of Dublin, in which he graduated in arts and in medicine, proceeding to the higher degrees of M.A. in 1859, and of M.D. in 1861.

For some time Dr. Sinclair was attached to the Army Medical Department, serving as Assistant-Surgeon in the second battalion of the Royal Scots. He resigned his commission and returned to Dublin, in order to devote himself to private practice. Having been appointed Assistant-Physician to the Rotunda Lying-in Hospital, he soon made a name for himself as an able and erudite obstetrician. His colleague in the Hospital was Dr. George Johnston, who many years afterwards became Master of the institution, and is now the President of the King and Queen's College of Physicians.

In conjunction with Dr. Johnston, Dr. Sinclair wrote that "Practical Midwifery," with which their names have ever since been closely identified. The scope and character of this work may best be appreciated from a statement of the fact that it comprises an account of 13,748 deliveries which occurred in the celebrated Dublin Lying-in Hospital during a period of seven years. On February 13, 1852, Dr. Sinclair became a Licentiate in Medicine of the King and Queen's College of Physicians, and on October 21, 1856, he was elected to the Fellowship. Three years later we find him Censor of his College—a post he filled on two occasions. In 1864 he served as Vice-President. On the resignation of the late Dr. Fleetwood Churchill, in 1867, Dr. Sinclair was elected by the College of Physicians, King's Professor of Midwifery in the School of Physic in Ireland. By virtue of this appointment, in accordance with the provisions of the "School of Physic Act," he became Physician to Sir Patrick Dun's Hospital, where soon afterwards he was mainly instrumental (in conjunction with his friend, the Rev. Professor Haughton, M.D.), in founding an excellent maternity—an institution at the time grievously wanted in the south-eastern district of the city. It was here that his great life-work was done. His army experiences had taught him how badly attended soldiers' wives too often were during and after the trial of childbirth, and this knowledge led him to found the "Army Midwives' Class" at Sir Patrick Dun's Hospital, which is now known all the world over, and which has proved a blessing to countless mothers.

For many years Dr. Sinclair lectured to large classes of soldiers' wives, who were also given an opportunity of becoming skilled practical midwives; and the importance of his labours were recognised in the highest quarters, for on the recommendation of His Royal Highness the Duke of Cambridge, the unexpected honour of knighthood was conferred on Dr. Sinclair by Her Gracious Majesty in the summer of 1880.

Sir Edward Sinclair filled many other posts of trust and dignity besides those already mentioned. He was sometime

Examiner in Midwifery and Diseases of Women and Children in the lately dissolved Queen's University of Ireland. He was Consulting Obstetrician to the Coombe Lying-in Hospital, Dublin; and in 1879-80 and 1880-81 he filled the presidential chair of the Dublin Obstetrical Society. In the College of Physicians he was Examiner in Midwifery from 1874 to 1879.

Sir Edward contributed many papers of exceptional merit to the medical journals. Amongst the most important the following may be mentioned:—"Extra-uterine Pregnancy," "Induction of Premature Labour by the Water-Douche and on a New Instrument for applying it," and "Naegele's Deformity of the Pelvis,"—all published in the *Dublin Journal of Medical Science*. He completed his services to the cause of nurse-tending by taking a leading part in the adoption of a By-law on April 4, 1874, by the King and Queen's College of Physicians, providing for the admission and examination of female candidates for a licence to practise as midwives and nurse-tenders.

Sir Edward married in 1849, and leaves a widow and family to mourn with the profession his comparatively early death.

JOSEPH WILLIAMS, M.D. EDIN., M.R.C.P. LOND.

DR. JOSEPH WILLIAMS, formerly of Tavistock-square, W.C., died on the 20th ult., at his residence, Holmhurst, Cambridge Park, Twickenham, at the age of sixty-seven. He pursued his professional studies at Guy's Hospital, and in Dublin, Paris, and Edinburgh; he became a Member of the Royal College of Surgeons of England in 1836, and graduated M.D. Edin. in 1839, with honours, obtaining the Gold Medal; and in 1859 he was admitted a Member of the Royal College of Physicians of London. He was the author of several learned and valuable works; for one of which, "On Narcotics and other Remedial Agents calculated to produce Sleep in Insanity," he obtained Lord Chancellor Sugden's Prize, in the gift of Trinity College, Dublin.

ALGERNON FREIRE-MARRECO, M.A. DURH.

PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF DURHAM.

A LARGE number of medical men and students in medicine and science will learn with deep regret that Professor Algernon Freire-Marreco died at Newcastle on February 27. He had been connected with the University of Durham since 1859, and for many years held the Professorship of Chemistry, and the Chair of Chemistry, both in the College of Medicine and in the College of Physical Science; and was also an Examiner for the Medical and Science Degrees. Born at North Shields in 1835, his father was descended from an old Portuguese family, but his mother was of English parentage. He obtained most of his education in Portugal, but his studies were completed in England, amid the chemical manufactories of the town in which he resided for so many years. His abilities were very remarkable. In addition to his profound knowledge of chemistry and the physical sciences, his powers as a linguist were unusually great, as he spoke Latin fluently, as well as English, French, German, and Portuguese. The interest which Professor Freire-Marreco took in all who came under his influence, whether in the examination-room or in the field, was almost unbounded. As a lecturer, his style was fluent and clear, whilst strongly marked by originality and humour. For athletic exercises he had an open purse and enthusiastic interest. He was a member of the Council of the Chemical Institute of Great Britain, a Fellow of the Chemical Society of Great Britain, and also that of Berlin. He was unmarried, and leaves a mother and sister to mourn his loss.

THE RIBERI PRIZE OF TWENTY THOUSAND FRANCS.—The subject adopted by the Academy of Medicine of Turin for the prize of 1886 is "Embryological Researches for the Advancement of our Knowledge of the Anatomy, Physiology, and Pathology of Man." The competing works, whether already printed or in MS., must be written in Italian, French, or Latin; and the printed works must have been published since 1881. Two copies must be forwarded to the Academy post-free; and if the prize is adjudged to a manuscript essay, this must be published and two copies forwarded before the prize is paid over to the successful candidate.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 3rd inst., and when eligible will be admitted to the pass examination, viz.:—

Barron, Hunter J., of the Edinburgh and St. Thomas's Hospitals.
Calrow, Thomas, of Manchester School.
Collins, Arthur W., of the Liverpool School.
Jordan, Gregory, of the Bengal School.
Larmuth, Leopold, of the Manchester School.
Mackenzie, Hector W. G., of the Cambridge School.
Morley, Arthur, of the Leeds School.
Parker, Joseph E., of the Manchester School.
Priestley, Robert C., of King's College Hospital.
Reid, Edward W., of the Cambridge School.
Roy, Siva Prasad, of the Calcutta School.
Scott, J. Harrison, of the Dublin School.
Shaw, William O., of the Manchester School.
Sinha, Narenára Prasanna, of the Bengal School.
Weston, George H., of the Cambridge School.
Wigham, William H., of the Newcastle School.
Wakefield, Mark J., of the Newcastle School.

Seven candidates were rejected. The following gentlemen passed on the 4th inst., viz.:—

Bencraft, Henry H. R., of St. George's Hospital.
Blackwell, Robert, of the Manchester School.
Brook, James H. E., of University College Hospital.
Cook, Henry S., of the Birmingham School.
Cooper, Charles B., of the Liverpool School.
Crouch, James H., of the Newcastle School.
Greenwood, William, of the Leeds School.
Harragin, Thornton F. W., of the Charing Cross Hospital.
Heath, Charles J., of St. Bartholomew's Hospital.
Hutchinson, Procter S., of the London Hospital.
Lanckester, Herbert H., of St. Thomas's Hospital.
Ling, Harold C., of the Glasgow School.
Macfarlane, Thomas B., of the Glasgow School.
Messiter, Arthur F., of the Birmingham School.
Morris, Edward G., of the Leeds School.
Purslow, Charles E., of the Birmingham School.
Revely, Joseph S., of the Newcastle School.
Talent, John W., of the Manchester School.
Thomas, John, of the London Hospital.
Thorold, William G., of the Bristol School.
Thorpe, Frank, of the Manchester School.
Williamson, Richard T., of the Manchester School.

Only two candidates were rejected.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 30:—

Clay, Augustus Frederic, Steelhouse-lane, Birmingham.
Daunt, Elliot, Little Stanhope-street, Mayfair.
Forrest, James Rocheid, Munster-terrace, Fulham.
Lota, Antoine Louis, Couloy (Var), France.
Norry, William Augustus, Wokingham, Berks.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Harris, Howard, Charing-cross Hospital.
Perry, Allen, London Hospital.
Whicher, James, Charing-cross Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

HOPKINS, H. CULLIFORD, M.R.C.S.E., Pathological Registrar and Curator to the Royal United Hospital, Bath—Assistant-Surgeon to the Hospital.

BIRTHS.

BANTOCK.—On March 29, at 12, Granville-place, Portman-square, the wife of Granville Bantock, M.D., of a daughter.

DEAN.—On March 25, at 42, Albion-road, Stoke Newington, the wife of John Dean, L.R.C.P., M.R.C.S., of a son.

EYRE.—On March 27, at Vega House, Forest Hill, the wife of John J. Eyre, L.K. & Q.C.P., of a daughter.

GREVES.—On March 28, at The Hollies, Shrewsbury, the wife of E. Eylá Greves, M.B., C.M., of 27, Oxford-street, Abercromby-square, Liverpool, of a daughter.

GWYNN.—On March 28, at 6, Hampstead Hill-gardens, the wife of Edmund Gwynn, M.D., prematurely of a son, stillborn.

HUNT.—On March 29, at Norfolk-street, Glossop, Derbyshire, the wife of W. H. Hunt, L.R.C.P., of a son.

NICHOLSON.—On March 30, at Coburg, the wife of Gilbert de Poulton Nicholson, M.D., of a daughter.

MARRIAGES.

COMRIE—LONGMIRE.—On March 18, at Newton Albott, Peter Comrie, M.D., to Mary Jane, youngest daughter of William Longmire, Esq., of 3, East-street, Manchester-square, and 34, Osnaburgh-street, N.W.

WALKER—BLUNDELL.—On March 1, at Port Alfred, South Africa, Lawrence Newman Walker, L.F.P.S., L.S.A., youngest son of William Newman Walker, F.R.C.S., of Grange Park-crescent, Ealing, to Florence Isabel, fourth daughter of H. C. Blundell, Esq., of Port Alfred.

DEATHS.

BLATHERWICK, SOPHIA, wife of Charles Blatherwick, M.D., at Dunaivon Row, Dumbartonshire, on March 28.
BLEST, ANTHONY E., M.D., M.R.C.S., H.M. Indian Army (retired list), at 12, Norfolk-terrace, Bayswater, on April 1, aged 85.
CURTIS, JAMES, M.R.C.S., at Norfolk-square, Brighton, on March 28, aged 66.
GRAVES, RYVES WILLIAM, F.R.C.S., J.P., at Barton-street, Gloucester, on March 31.
HADAWAY, MARY ANN, wife of J. Hadaway, L.R.C.P., at 47B, Welbeck-street, Cavendish-square, on March 31, aged 55.
HOFFMAN, GEORGE H., M.R.C.S., at Coombe Lodge, Putney Heath, on March 31.
JONES, ALFRED, M.R.C.S., at 160, Wolverhampton-street, Dudley, on March 22, aged 39.
O'BRIEN, P., F.R.C.S., Surgeon Bengal Army (retired list), at St. Helier's, Jersey, on March 24.
STONE, CHARLES H., M.D., at 1, Victoria-road, St. Leonards-on-Sea, on April 3.
SWAIN, WILLIAM PAUL, son of William Paul Swain, F.R.C.S., of The Creseent, Plymouth, at Nice, on March 29.
WAGHORN, FREDERICK, M.D., Surgeon-Major A.M.D., at Aldershot, on March 30.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Candidates must be registered and possess both a medical and a surgical qualification. Applications, with original testimonials and certificates of registration, to be forwarded to the Secretary, Alexander Forrest, on or before April 12.

CAMBRIDGE COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be duly registered medical practitioners and unmarried. Applications, stating age and qualifications, with testimonials, to be sent to T. Musgrave Francis, Clerk to the Visitors, on or before April 15.

CHELTEMHAM GENERAL HOSPITAL AND DISPENSARY.—Resident Surgeon. Candidates must be on the Medical Register as qualified to practise medicine and surgery; they will not be permitted to practise privately in either branch of their profession. Applications, with copies of testimonials, to be sent to the President, Cheltenham General Hospital, not later than April 17.

CHILDREN'S HOSPITAL, STEELHOUSE-LANE, BIRMINGHAM.—Assistant Resident Medical Officer. Candidates must be registered members of the medical profession, in accordance with the Act 21 Vict., cap. 90; and their certificates of registration, with their testimonials, must be sent to the Secretary at the Hospital not later than April 13. The election will be held on April 17.

MIDDLESEX COUNTY LUNATIC ASYLUM, BANSTEAD DOWNS, NEAR SUTTON.—Assistant Medical Officer. (For particulars see Advertisement.)

NATIONAL DENTAL HOSPITAL, 149, GREAT PORTLAND-STREET, W.—House-Surgeon. Candidates must possess an L.D.S. degree. Applications, with testimonials, to be sent to the Secretary, Arthur G. Klugh, on or before April 26.

QUEEN'S HOSPITAL, BIRMINGHAM.—Resident Surgeon. Applications and testimonials, with certificates of registration, to be sent, under cover, to the Secretary at the Hospital, from whom all further information may be obtained, on or before April 10.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Junior Resident Medical Officer. (For particulars see Advertisement.)

SCARBOROUGH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Candidates must be members of one of the Royal Colleges of Surgeons of the United Kingdom and registered under the Medical Act. Applications, with testimonial of recent date as to character, etc., to be sent to the Secretary, Hugh Watson, St. Mary's-walk, Scarborough (from whom all particulars may be obtained), not later than April 15.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Physician. (For particulars see Advertisement.)

YORK COUNTY HOSPITAL.—Honorary Physician. (For particulars see Advertisement.)

COLLEGIATE EXAMINATIONS.—The first anatomical and physiological examination for the diploma of Membership of the Royal College of Surgeons for the present session was commenced on Friday, March 31, when 232 candidates presented themselves, to whom the following questions in Anatomy were submitted, to be answered from 1 to 3 p.m., viz.:—1. Describe the structures which are in relation with the brim of the true pelvis in the female. 2. Describe the deep fascia of the arm. What muscles take origin from it, and what muscles give off tendinous expansions to strengthen it? 3. Describe the soft palate. Give the attachments, relations, and nerve-supply of the muscles entering into its formation. 4. Describe the course of the various arteries in relation with the pancreas. 5. Name the commissures of the cerebrum, and state the position and connexions of each. 6. Describe the annular ligaments of the ankle. Give the relations of the various tendons and their synovial sheaths with each

ligament. Candidates were required to answer four, and not more than that number, out of the above six questions. The following were the questions on Physiology to be answered from 4 to 6 p.m. the same day, viz.:—1. State the composition and uses of the bile. 2. What is meant by a "current of rest" or "natural current," and a "current of action" in striated muscle? Describe how such currents may be demonstrated. 3. Enumerate the constituents of urine, and state the circumstances which affect the composition of the urine in health. 4. What are the functions of the medulla oblongata? 5. Describe the structure and functions of the placenta. 6. What are the functions of the spinal accessory nerve? State how these have been determined. The same regulations applied to these questions as to the former.

RULES FOR CONTRIBUTIONS TO MEDICAL JOURNALS.—In an article on "How to Contribute to Medical Journals," in the *Philadelphia Med. Reporter*, March 4, the following rules are recommended to the notice of would-be contributors to medical journals:—1. Be positively sure that you have something new to contribute. 2. Tell it in as few essay as possible. 3. Do not plagiarise from text-books. 4. Never report an uncertain case that has terminated fatally without a verification or falsification of the diagnosis by a post-mortem examination. 5. Do not send the same communication to half a dozen journals. Select one, and send it to no others. If you neglect this rule, your habit will be ultimately found out, and all journals will reject your communications.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting on Monday, April 3 (Mr. George Busk, F.R.S., in the chair), Benjamin Baker, Esq. M.I.C.E., and William Edmund Rich, Esq., M.I.C.E., were elected members of the Royal Institution. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same. Eleven candidates for membership were proposed for election.

THE RADICAL CURE OF CANCER.—It has been announced that none of the essays sent in competition for the prize offered, in America, for the best essay on this subject, have been judged worthy of the prize. The same subject, namely, "The Probability of the Discovery of a Cure of Malignant Disease, and the line of Study or Experimentation likely to bring such a Cure to light," is proposed for essays to be presented in competition not later than December 1, 1883, to Dr. J. Collins Warren, of Boston, United States, who, with such assistance as he may select, will be the judge of their merits. For the best essay on the subject a prize of \$1000 will be given, the right being reserved to withhold the prize in case no essay of sufficient merit be presented.

PROFESSOR BILLROTH.—Hofrath Prof. Billroth, accompanied by one of his assistants, has gone to Bordeaux to perform an important operation, said to be an excision of the stomach. The fee he received for the amputation performed on Prince Tschertkow at St. Petersburg was 15,000 florins.—*Deutsche Med. Woch.*, March 18.

REMARKABLE CASE OF GUNSHOT WOUND OF THE HEAD.—Mr. Byrne was shot in the head in August, the ball entering three inches above the left eyebrow, three-quarters of an inch to the left of the median line, passing diagonally through the brain, and lodging in the right cerebellum. The ball could be felt by a probe at a depth of six or seven inches. The patient remained unconscious for about thirty-six hours, after which he recognised everybody. Quinine was given him during the next forty-eight hours, his pulse being 68 or 70. He was soon able to take a generous diet, and was gaining flesh, when, at the end of the tenth week, his pulse became much smaller. At the end of the twelfth week he died, and at the autopsy the diagnosis as to the position of the ball was verified. This, however, was not the direct cause of death, but a portion of bone that had been carried in half an inch long, one-third of an inch wide, and of the thickness of the skull. This was driven down into the brain a distance of two inches and a half. Near it was an abscess as large as an egg, and the brain posterior to this was soft and entirely broken down, parts of it being almost in a suppurating condition. The right hemisphere was nearly in a normal condition. There was no suppuration in the cerebellum, where the ball was resting.—*Phil. Med. Times*, December 17.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 1, 1882.

BIRTHS.

Births of Boys, 1330; Girls, 1317; Total, 2647.
Corrected weekly average in the 10 years 1872-81, 2633·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	788	867	1655
Weekly average of the ten years 1872-81, } Corrected to increased population ...	958·0	925·2	1883·2
Deaths of people aged 80 and upwards ...	...	...	57

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West	669633	...	6	3	2	26	...	3	...	1
North	905947	1	6	6	6	26	...	7	...	1
Central	282238	...	2	1	1	13	...	1	...	1
East	692738	...	4	3	9	37	...	6	1	3
South	1265927	8	26	8	11	57	...	9	1	3
Total	3816483	9	44	21	29	159	...	26	2	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	29·660 in.
Mean temperature ... ..	...	...	...	...	...	46·6°
Highest point of thermometer ... ..	...	...	...	...	...	60·0°
Lowest point of thermometer ... ..	...	...	...	...	...	33·8°
Mean dew-point temperature ... ..	...	...	...	...	...	41·1°
General direction of wind ... ..	...	...	...	...	...	S.W.
Total amount of rain in the week ... ..	...	...	...	...	...	0·17 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the
Week ending Saturday, April 1, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending April 1.	Deaths Registered during the week ending April 1.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London	3893272	2647	1655	22·2	60·0	33·8	46·6	8·12	0·17	0·43
Brighton	109595	87	40	19·0	56·0	33·7	44·8	7·12	0·00	0·00
Portsmouth	129916	87	54	21·7	...	...	...	...	...	...
Forwich	88321	71	38	22·3	...	...	...	...	...	...
Lymouth	74449	43	31	21·7	56·0	35·2	46·4	8·00	0·31	0·79
Bristol	210134	122	97	24·1	56·4	33·4	45·0	7·22	0·70	1·78
Wolverhampton	76756	59	34	23·1	55·4	30·8	42·4	5·78	0·20	0·51
Birmingham	408532	299	163	20·8	...	...	...	...	...	...
Leicester	126275	112	39	16·1	63·2	31·0	45·4	7·44	0·03	0·08
Nottingham	198573	144	97	26·1	57·6	29·6	45·0	7·22	1·03	2·62
Derby	83587	58	38	23·7	...	...	...	...	...	...
Birkenhead	86592	55	30	18·1	...	...	...	...	...	...
Liverpool	560377	396	289	26·9	55·9	33·5	45·5	7·50	0·28	0·71
Bolton	106767	93	62	30·3	54·8	33·1	42·5	5·84	0·81	2·06
Manchester	340211	273	213	32·7	...	...	...	...	...	...
Alford	184004	168	98	27·8	...	...	...	...	...	...
Oldham	115572	87	76	34·3	...	...	...	...	...	...
Blackburn	106460	94	59	28·9	...	...	...	...	...	...
Preston	97656	98	58	31·0	...	...	...	...	...	...
Luddersfield	83418	49	17	10·6	...	...	...	...	...	...
Halifax	74713	51	37	25·8	...	...	...	...	...	...
Bradford	188101	128	83	23·0	54·3	35·0	44·2	6·78	0·57	1·45
Leeds	315998	202	127	21·0	57·0	36·0	44·9	7·17	1·20	3·05
Sheffield	290516	222	126	22·6	59·0	33·0	45·5	7·50	0·13	0·33
Hull	158814	113	68	19·1	56·0	30·0	42·7	5·95	0·15	0·38
Wolverhampton	119065	105	47	20·6	65·0	35·0	47·4	8·55	0·13	0·33
Newcastle	147626	109	71	25·1	...	...	...	...	...	...
Cardiff	86724	56	30	18·1	...	...	...	...	...	...
For 28 towns	8457514	6028	3767	23·2	65·0	29·6	44·9	7·17	0·41	1·04
Edinburgh	232440	153	87	19·5	56·8	35·5	45·4	7·44	0·30	0·76
Glasgow	514048	391	242	24·6	55·0	31·5	44·5	6·96	0·38	0·97
Dublin	348293	239	240	36·0	56·6	32·5	44·4	6·89	0·36	0·91

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·66 in. The lowest reading was 28·88 in. on Sunday morning, and the highest 30·03 in. on Tuesday morning.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

An Old Member.—The convict Lamson is not in any way connected with the Royal College of Physicians of London, the Royal College of Surgeons of England, or the Society of Apothecaries, London.

A most Praiseworthy Sanitary Improvement.—A faculty has been granted to convert the ancient graveyard attached to St. Mary's Church, Haggerston, into a garden. There are still many large churchyards in and around the metropolis, which, long since disused as places of sepulture, offer advantages for adaptation as gardens for recreation purposes—a conversion which would not only be a vast improvement of their present desolate aspect, but a great boon to the people.

Inventus.—Comte de Beaufort was the founder of the "Society for Aiding the Maimed Poor" in Paris. For many years he has been well known in France by his labours for the sick and wounded, and his various inventions for their benefit. He invented jointed legs, which were highly approved by Paris surgeons of distinction—Drs. Nélaton, Larrey, and others. He was also the inventor of false arms and hands which were equally approved; and the prices of these inventions were quite within the means of the poor.

A Metropolitan Teacher.—At the primary examination in anatomy and physiology for the diploma of membership of the Royal College of Surgeons, which was commenced on Friday last, there were 232 candidates, against 214 at the corresponding period last year, showing an increase of eighteen.

House Agents and Insanitary Houses.—A case, heard a few days since before Mr. Commissioner Kerr, involved a point of some general public interest, to which attention may usefully be drawn. House agents do not, as a rule, perhaps, make much inquiry of the landlord as to the sanitary condition of the houses they are deputed to let. A statement that due attention has been paid to such requirements, or the assumption that the house is satisfactory in that respect, seems to be thought sufficient. The agent in the present case represented that a house at New Cross had recently been put in good order, and it was alleged by the plaintiff, the tenant, that this representation included a statement to the effect that the drainage was good and the dwelling free from any defects injurious to health. A serious illness subsequently occurred in the tenant's family, which it was alleged had been caused by the bad drainage, and the plaintiff claimed £50 damages. The landlord urged that the agent had no authority from him to make any representation as to the condition of the house; but the Commissioner gave judgment for the plaintiff. He considered that the landlord in this instance was bound by the statements of his agent, and on that point of law gave the judgment.

Inquirer.—The object of the Bill introduced into the House of Lords by Lord Stanhope is to extend to all workmen whatsoever the provisions of the Coal Mines Regulations Act, 1872, and the Metalliferous Mines Regulation Act, 1872, prohibiting the payment in public-houses, beer-shops, or other places mentioned therein, of wages to persons employed in mines. The Bill has been read the first time. It is not to apply to Ireland.

Doctors' Bills.—A correspondent of a contemporary writes—"Can nothing be done to oblige surgeons to give the details of their bills? One never thinks, with a large family, of taking note of a doctor's visits, and at the end of a few months a bill comes in for a lump sum, which may be right or wrong, but which there is no means of checking. In one case I called for details, and received in reply a very sharp letter, declining to give them, and stating that the writer 'was not in the habit of overcharging.' 'The more reason why,' I answered, 'you should be ready to prove the items of your charges.' In the result he let out that he had credited me with £17 10s. for a cheque for £20—a pure blunder, no doubt, but one that proved the reasonableness of my demand. A gentleman recently informed me that, an accident having happened to his child, for which another was responsible, he, a few months after, received a bill for general attendance, and on asking the surgeon to specify the fees relating to the child's accident, he replied that he was only able to do so approximately. How, then, was the total arrived at?" Complaints and grumbles of this kind crop up every now and again, and then die out; only they more usually show when the newspapers are beginning to be in need of padding.

Clement, Peckham.—The Deputy Coroner (Mr. S. Langham) expressed his willingness to accept bail for Smyth, the medical student now awaiting his trial, provided he could find sureties for £200. It has not yet, we believe, been decided whether or not Smyth will be charged before a magistrate, or whether he will be placed on his trial on the Coroner's inquisition only; either or both courses may be adopted. By a recent order made by the Treasury no prisoner charged with manslaughter can be taken before a magistrate until a full report of the case has been made to the Scotland-yard authorities, and it is for them to decide what course should be adopted.

Weather Forecasts.—The estimates show that the annual cost to the country of sending daily a weather chart to the morning papers is £800.

G. G., Paddington.—It has been reported that Dr. Frankland's evidence before the Select Committee of the House of Commons appointed to inquire into the provisions of the London and South-Western Spring Water Bill, was to the effect that he had examined all the schemes for water supplies on behalf of the Local Government Board and the Registrar-General, and had come to the conclusion that well-water was the most desirable. If the whole of the metropolis, he added, were supplied with chalk-water, an epidemic of cholera would be an impossibility.

Health at Broadstairs.—Dr. Robinson, the Medical Officer of Health, in his annual report states that the death-rate for the past year was 15 per 1000 only. This is the third year in succession that the death-rate has stood at the same figure.

Temperance Items.—During the hearing of a charge of drunkenness at the Bridgwater Petty Sessions, a few days since, the superintendent of police, alluding to the success of the efforts on behalf of temperance carried on in the town, said there seemed to be a probability that the public-houses would soon be closed altogether.—Five members of the local Coventry Temperance Society, who spoke at a recent meeting of that Society in the town, made up together a teetotal life of 205 years. One speaker had been a total abstainer for fifty years, a second for forty-six years, a third thirty-eight years, a fourth thirty-six years, and a fifth for thirty-five years.

Rugby Football Union.—At the annual meeting, held in London last week, it was decided that a sum of £100 out of the receipts of the international match, England v. Scotland, should be presented to the Manchester Infirmary.

Love and Physic: How to get Married.—The *Irish Times* reports that a novel method of courting a lady has been inaugurated at a small town in the vicinity of Paris. M. Bidet, who practises as a physician in Nogent-sur-Marne, where the device was first tried, had invented a liqueur, which he advertised as "specially designed for the use of ladies," and being at some loss for a good name for it, he conceived the idea of dedicating it to the honour of the lady of his affections. Accordingly, the liqueur was christened "Navarrine"—the lady's patronymic. M. Navarrine père took the compliment to himself, and straightway affianced his daughter to the ingenious man of physic. Thus far everything had gone on well, but unfortunately a meddlesome journalist got hold of the true love story, and by writing ill-natured comments upon it, reduced largely the profits obtainable from the sale of the liqueur. Hence recriminations, and an action for defamation, which the jury decided against the physician.

The Sanitary Council superseded at Tunis.—The Consuls have declared that the Bey, in authorising the establishment of the new cemetery, failed in his duty, as he did so without consulting them or the Sanitary Council. A committee composed of the Consuls of England, Italy, France, and Spain, and the chief physician of the Bey, has been appointed in order to examine the matter and report upon it.

Hippophagy.—From the recent official report it is seen that the use of horse-flesh as an article of human food is steadily increasing in Paris. In 1875, 7000 horses were slaughtered for this purpose; in 1880 the number was 9000; and in 1881, 9300. Besides these, there were sold at the forty establishments exclusively devoted to this business, 10 carcasses of donkeys in 1875, 320 in 1880, and 400 in 1881. The estimated weight of horse-flesh consumed in Paris last year was about 1670 English tons, and in addition about 18 tons of donkey-flesh, without reckoning the offal, which is used in the making of sausages.

Longevity in France.—At a recent banquet given on his ninety-eighth birthday to Professor Chevreul, who still lectures on Agriculture, he walked home after midnight from the banquet in his honour. At a reception, a few days ago, of M. Sully Pirhomme at the Academy, the octogenarians made a good show—M. Mignot, eighty-seven; M. Dumas, the chemist, eighty-three; the Duc de Noailles, eighty; and Victor Hugo, eighty. None of these appeared to be encumbered by their weight of years.

The Broomhill and Dunoon Homes, Glasgow.—The Honorary Secretary has announced that the bazaar, just closed, in aid of the institution shows the total drawings for the eight days, over which it extended, to be £15,604 6s. 6½d.

Sewer-Gas and Blood-Poisoning.—The Coroner for East Sussex has held two inquests in the Hove district on the bodies of a woman and a man whose deaths were alleged to be caused by blood-poisoning in Cliftonville. These cases make three of marked blood-poisoning within a very short time, and at a short distance from each other. In the woman's case, death was conclusively traced to the inhalation of sewer-gas arising from the opening of a drain in the street in which she lived. A verdict to that effect was returned.

The Preservation of Food.—Professor Barff, M.A., has discovered a new antiseptic compound for the preservation of food. The substance is a colourless compound, soluble in water. He contended, in a lecture at the Society of Arts, that it will enable meat to be kept far better than by any other, as yet known, process; that it destroys those organisms which set up decomposition; and that food permeated with the composition in liquid can be preserved for many months at a trifling cost.

COMMUNICATIONS have been received from—
Dr. PYE-SMITH, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Dr. HANDFIELD JONES, London; Messrs. JONES and BARBER, London; Dr. FRANCIS VACHER, Birkenhead; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON; Mr. J. CHATTO, London; THE SECRETARY OF THE UNIVERSITY OF ABERDEEN; Mr. KEETLEY, London; THE HONORARY SECRETARIES OF THE CLINICAL SOCIETY OF LONDON; THE HONORARY SECRETARY OF THE ROYAL MICROSCOPICAL SOCIETY, London; THE HONORARY SECRETARY OF THE HARVEIAN SOCIETY, London; SECRETARY OF THE ROYAL INSTITUTION OF GREAT BRITAIN; Dr. GUYE, Amsterdam; Dr. J. COLLINS WARREN, Boston, U.S.A.; Messrs. WRIGHT, LAYMAN, and UMNEY, London; Dr. CHURCHILL, London; Mr. J. WICKHAM BARNES, London; Dr. W. B. HADDEN, London.

BOOKS, ETC., RECEIVED—

Ringworm, by Alder Smith, M.B., F.R.C.S.—Therapeutics, by Sydney Ringer, M.D.—Diet and Regimen, by Horace Dobell, M.D.—Medical Testimonials as to the Effects of Opium-Smoking, by Sir James Risdon Bennett, M.D., LL.D., F.R.S.—Report of the Derbyshire County Lunatic Asylum—Obstetrical Transactions, vol. xxiii.—The Case of Guiteau, a Psychological Study, by George M. Beard, M.D.—The Trance State in Inebriety, by T. D. Crothers, M.D., and George M. Beard, M.D.—The Family Doctor, by Robert Fowler, M.D.—The Sphygmograph, by R. E. Dudgeon, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Philadelphia Medical Times—National Anti-Compulsory Vaccination Reporter—Physician and Surgeon—Le Courrier des Sciences—Revue Mensuelle de Laryngologie, etc.—The Veterinarian—Birmingham Medical Review—L'Impartialité Médicale—Zeitschrift für Diagnostik und Therapie—Archives Générales de Médecine—Le Concours Médical—Uniao Médica—Journal of Science—Edinburgh Medical Journal—La Presse Médicale—Ophthalmic Review—Glasgow Medical Journal—Sanitary Chronicles of the Parish of St. Marylebone—Monthly Homœopathic Review—Indian Medical Gazette—The Practitioner—Students' Journal and Hospital Gazette—The Analyst—Medical News.

APPOINTMENTS FOR THE WEEK.

April 8. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

10. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

11. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (8 p.m., Ballot), 8½ p.m. Sir Henry Thompson, "On a Case of Tumour of the Bladder (in the Male) successfully Removed through a Perineal Section of the Urethra." Mr. T. Holmes, "On Wounds of the Theca Vertebralis, with Discharge of Cerebro-Spinal Fluid."

12. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

ROYAL MICROSCOPICAL SOCIETY, 8 p.m. Ordinary Meeting.

13. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

HARVEIAN SOCIETY, 9 p.m. Dr. Mahomed will introduce the subject of Collective Investigation of Disease. Mr. Jules, "On the Symptoms, Pathology, and Treatment of Iritis."

14. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

CLINICAL SOCIETY OF LONDON, 8½ p.m. Report of Committee on Chromidrosis. Dr. Barlow and Mr. Godlee, "On a Case of Extirpation of the Kidney for Calculous Pyelitis." Mr. Howard Marsh, "On a Case of Pyelitis: Exploration of the Kidney; Partial Removal; Death from Suppression of Urine." Mr. Pearce Gould (1) "On a Case of Spinal Bifida Cured by Injection of Iodine;" (2) "On a Case of Congenital Intestinal Obstruction." Dr. de Havilland Hall, "On a Case of Primary Perichondritis of the Larynx." Dr. C. T. Williams will show a Case of Phthisis which has been treated by Residence at High Altitudes."

ORIGINAL LECTURES.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

By DR. MCCALL ANDERSON,

Professor of Clinical Medicine in the University of Glasgow;
Physician to the Western Infirmary, and to the Special Wards for Diseases
of the Skin.

LECTURE VII.

B.—ORGANIC AFFECTIONS.

I.—THOSE DEFINED BY UNIFORM CAUSES.

1. *Parasitic Affections of the Skin.*

A.—*Cutaneous Affections due to the presence of Vegetable Parasites (Dermatophyta).*

THE first variety of *Tinea Tricophytina* to be described is—

(a) *Ringworm of the head* (*Tinea tonsurans*—*Herpes tonsurans*).—This variety, which is met with almost exclusively in children, and is rarely, if ever, observed in adults, commences in the form of minute, red, slightly elevated, round spots; these gradually increase in size, become scaly, and are sometimes the seat of minute vesicles (hence the term *Herpes tonsurans*). At the outset the affection is a mere surface affair, but as it advances and involves the hairs the diseased condition of the latter becomes the great feature of the complaint. They become dull, dry, twisted, and are easily extracted; they are also brittle—so much so that they have a tendency to break off within a line or two of the surface. The patch, if it continues round, which is not always the case, thus resembles a tonsure (hence the name *Tinea tonsurans*). The surface and stumps of the hair have a tendency in this stage to be covered with a characteristic greyish white powder (the fungus), and often there is slight elevation and puffiness of the skin, which is marked by little prominences from engorgement and elevation of the orifices of the follicles, thus resembling the skin of a plucked fowl (Mahon). Bazin lays great stress on the colour of the affected surface, which is bluish or slate-coloured in dark subjects, greyish, reddish, or yellowish in fair persons, being thus in marked contrast to the colour of the healthy skin in the vicinity.

In the advanced stages of the disease the inflammatory action may run higher, and small swellings may form from infiltration of the subcutaneous cellular tissue, somewhat similar to those met with in typical cases of ringworm of the beard. These are the seats of numerous foramina, the gaping orifices of the hair-follicles, from which a glutinous honey-like fluid exudes, which may glue together the surrounding hairs; but the hairs springing from the surface of the swellings are generally broken off close to the skin and very easily detached. They are apt to be mistaken for subcutaneous abscesses, and opened, but instead of pus, a sticky albuminoid fluid escapes. As was remarked by Tilbury Fox, they correspond in every respect with the Kerion of Celsus.

In other cases the eruption is complicated by the development of pustules, which dry into crusts, and an *Eczema impetiginodes* is thus superadded, which may lead to errors of diagnosis. Ringworm of the head may continue for an indefinite time; indeed, when it attacks a family of children, it may be years before it finally takes its leave: at the same time it may terminate spontaneously, occasionally after obliteration of some of the hair-follicles, and more or less permanent alopecia, though generally not to any great extent. Throughout the complaint there is usually some itchiness, though not nearly to the same extent, as a rule, as in cases of *eczema*, with which it may be confounded.

The following tables should aid the diagnosis:—

Tinea favosa capitis.

Tinea tonsurans.

- | | |
|--------------------------------------------------------------------|-----------------------------------------------|
| 1. Often seen in adults, although usually commences in early life. | 1. Rarely, if ever, met with in adults. |
| 2. May be combined with Favus of the skin. | 2. May be combined with Ringworm of the body. |

3. Favus cups detected, or reappear if head untouched for a couple of weeks.

4. The Achorion detected with the microscope.

5. If disease of old standing, usually considerable permanent alopecia.

6. On epilation, hairs come away more readily than in health, but with their bulbs and capsules entire.

Chronic Erythema (Pityriasis) capitis.

1. Oftenest met with in adults.

2. Generally diffused, frequently affecting the whole head.

3. Hairs not diseased, although apt to come away on combing and thus to produce much temporary thinning of the hair.

4. No parasite to be detected.

5. Itching usually marked, and scales often fall in abundance upon the shoulders.

6. Not contagious.

Eczema impetiginodes capitis.

1. Patches not circular, though may appear so owing to the hair having been cut away with the scissors around each.

2. Hairs healthy (though they may fall out here and there), and exhibit no parasite.

3. Itching usually great.

4. Eczematous eruptions often on other parts of the body.

5. Not contagious.

3. No cups detected, but many hairs broken off close to the skin.

4. The Tricophyton detected with the microscope.

5. Alopecia, when present, slight, as a rule.

6. Hairs apt to break on attempting to extract them, or to come away without their bulbs.

Tinea tonsurans.

1. Rarely, if ever, met with in adults.

2. More patchy—commonly more or less circular, and never implicates the whole head.

3. Hairs discoloured, brittle, much thickened, twisted, or broken off close to the scalp.

4. Epithelial debris and hairs loaded with the fungus.

5. Itching usually moderate, and scales do not fall upon the clothing.

6. Very contagious, and often other members of the family exhibit one or other of the varieties of ringworm.

Tinea tonsurans.

1. Patches generally tend to assume the circular form.

2. Hairs brittle, thickened, discoloured (sometimes white),—twisted, or broken off close to the scalp: loaded with the fungus.

3. Itching usually moderate.

4. Ringworm often on the body as well.

5. Very contagious, especially to children; and other members of the family may exhibit ringworm of the head or body, or less frequently of the beard.

As before remarked, the complication of Ringworm with *Eczema* of the head is not uncommon, especially in the case of delicate children, and the former is very apt to be overlooked. The history of the case, however, the commencement of the disease in circular dry patches, and the frequent evidences of contagion, should arouse our suspicions; a search should then be made for the little characteristic stumps of hairs, or for hairs which are thickened, discoloured, and twisted; and a careful microscopic examination, both of the hairs and epithelial debris, should be made, which should settle the point.

The diagnosis of *Psoriasis capitis* from *Tinea tonsurans* should not be difficult. The former is not contagious; the hairs are not affected; no parasite is to be found; the patches are redder and with very distinctly circumscribed margins; the scales are thicker and more silvery; and generally (not always) typical patches of *Psoriasis* are met with on other parts, notably on the elbows and knees. The disease, too, more frequently occurs in very healthy-looking persons, is very frequently observed in adults, and has a great tendency to relapse, especially in spring and in autumn.

(b) *Ringworm of the body* (*Tinea circinata*—*Herpes circinatus*).—This form is most frequently met with in children, although it is by no means uncommon in adults, in whom it

is apt to occur as a complication of ringworm of the beard, especially on the back of the wrist, from rubbing the chin with that part.

It commences as little round, rose-coloured, slightly elevated spots, which soon become scaly and itchy. These, which may attack any part of the surface, but which are most frequently on the uncovered parts of the body, gradually increase in size, and so long as the disease is advancing, the spreading edge is usually distinctly elevated. As each patch increases circumferentially, it tends to heal in the centre, so that rings of eruption are left, which may even be four or five inches in diameter, the enclosed skin being nearly healthy or, exceptionally, the seat of fresh patches. When the tendency to recover is well marked, the healing in the centre proceeds more rapidly than the spreading at the edges, so that the rings become incomplete, leaving segments of circles, which, in their turn, by degrees disappear. If the inflammatory action runs high, the elevation of the patches may be considerable, and they may be the seat of vesicles (hence the term *Herpes circinatus*), or even of pustules. This affection not unfrequently terminates spontaneously, the fungus being very superficial, and, as Bazin has remarked, apt to die from want of nourishment. The subjoined tables may be of service in diagnosis.

Tinea favosa epidermidis.

1. Circles of eruption comparatively small and pretty uniform in size.
2. Often yellow streaks mixed with the epithelial debris.
3. On microscopic examination the Achorion detected.
4. Often accompanied by Favus of the head.

When in the case of *Tinea favosa epidermidis* the fungus penetrates into the hair follicles, and yellow cup-shaped crusts, in consequence, make their appearance, the diagnosis of Favus is no longer doubtful.

Erythema circinatum.

1. Not contagious, and no fungus to be detected amongst the scales.
2. May be complicated with Eczema on other parts of the body.
3. Patches less elevated, and tendency to healing in the centres and spreading at the edges less marked.
4. Rings of eruption are, on the whole, smaller, as a rule, and oftenest seen on front and back of the chest.

Erythema circinatum syphiliticum.

1. Generally symmetrical, being due to a constitutional cause.
2. No itching as a rule.
3. Eruption generally copious in the chronic stage.
4. No fungus to be found.
5. Other manifestations of Syphilis on the skin or elsewhere.
6. History of syphilitic infection.

Lepra: the circular variety of Psoriasis.

1. Symmetrical.
2. Has a special tendency to attack elbows and knees.

Tinea circinata.

1. Circles of eruption more variable in size, and may be several inches in diameter.
2. Absence of yellow streaks among the epithelial scales.
3. On microscopic examination the Tricophyton detected.
4. Often accompanied by Ringworm of the head or beard.

Tinea circinata.

1. Contagious, and fungus detected if the disease is seen in the early stage.
2. Often complicated with Ringworm of the head, or less frequently of the beard.
3. Patches distinctly elevated while the disease is advancing, and tendency to heal in the centres and spread at the edges more decided.
4. Rings of eruption often of considerable size, and most common on uncovered parts of the body.

Tinea circinata.

- Generally unsymmetrical, being due to a local cause.
2. Itching the rule.
3. Not coppery, but rosy in tint.
4. Fungus to be detected in the advancing stages.
5. Often complicated with Ringworm of the head, or in adult males with Ringworm of the beard.
6. History of exposure to infection from others, or from the lower animals suffering from Ringworm.

Tinea circinata.

1. Non-symmetrical.
2. Special tendency to attack uncovered parts, and not the elbows and knees.

3. Scales thick, imbricated, very adherent, silvery, and contain no parasite.

4. Not contagious.

3. Scales thin, loosely attached, not silvery, and in the early stage fungus detected.

4. Contagious.

The disease described by Hebra under the name of *Eczema marginatum*, has been proved to be a mere variety of Ringworm, and due to the presence of the same parasite, the Tricophyton.

That this is the case has been conclusively proved by Köbner, who inoculated himself with some of the scales, and in two or three weeks thereafter very beautiful rings of *Tinea circinata* (Ringworm of the body) made their appearance, the epithelial debris from which was found to be loaded with the Tricophyton. Although not uncommon in this country, it is oftener encountered in warm climates—hence the terms “Burmese Ringworm,” “Chinese Ringworm,” etc., often applied to it.

It commences generally on the inside of the thigh where it is in contact with the scrotum, as a small, round patch, which is red, elevated, itchy, and which, as the result of friction and the moisture of the parts, may become the seat of papules, vesicles, excoriations, or crusts, thus putting on an eczematous character. This patch, by-and-by, heals in the centre, leaving the enclosed skin more or less deeply pigmented, while it extends circumferentially until it may reach the size of the palm or more. Sooner or later similar patches are apt to form in the vicinity, and to run the same course, and these may coalesce with the circle first formed in such a way that, at last, a huge circle of eruption may result, extending nearly to the umbilicus above, the knee below, and the sacrum behind. Often inside this circle new ones form in a concentric manner, or the surface may be studded with numbers of minute rings, and in many cases similar patches are detected on other parts of the body.

According to Hebra, this eruption occurs almost exclusively in shoemakers and dragoons, but I have met with it in persons of various occupations; and the reason why the insides of the thighs are favourite seats for it, and why it is there apt to put on the eczematous character, is on account of the heat and moisture and exposure to friction of these parts. (a)

(c) *Ringworm of the Beard* (T. Sycosis—Sycosis parasitica).—As its name implies, this variety is exclusively met with in adult males. It is almost always traced to a “foul shave” in a barber’s shop; indeed, while I have seen multitudes of such cases, I have never met with one in which the patient always shaved at home, unless communicated by other members of the family suffering from Ringworm. It is oftenest met with on, or in the vicinity of, the chin (hence the term *Sycosis menti*, sometimes applied to it), or other hairy portion of the face; but any hairy part may be attacked, although on the head the disease partakes of the characters of *Tinea tonsurans*.

It commences as small erythematous spots, which often heal in the centre and spread at the circumference, leaving rosy circles or segments of circles covered with furfuraceous desquamation. Many of the hairs springing from the affected surface are found to be broken off close to the skin, and can be pulled out with the utmost facility, as easily as a pin can be pulled out of a pincushion; and often they are of a white colour, owing to being covered with the whitish fungous matter. Frequently the case is not seen until the disease, at some parts at all events, is more advanced; then papules and pustules are apt to form at the orifices of the follicles; the deeper structures, too, become involved, and indurations occur, surmounted by pustules, resembling those of *Acne indurata*, afterwards to be described. Finally, if the cellular tissue becomes deeply implicated, larger indurations may make their appearance, which are frequently covered with crusts, on removing which fleshy-looking masses are exposed to view, the surfaces of which are not unlike the pulp of a fig—(hence the term *Sycosis*, derived from *συκον*, a fig. These, when present, are very characteristic; but it is right to mention that, in this country at least, the more aggravated forms of eruption described are often absent.

In the advanced stages the hair becomes even more diseased; it has lost its shining appearance, is thickened,

(a) For further particulars, see author’s volume “On the Parasitic Affections of the Skin,” second edition, page 76. Churchill, 1868.

its colour is altered, it is very brittle, and tends to break off on a level with the skin, leaving little blackish stumps, which stud the tubercles, and which are so loose that they can be extracted without the patient feeling it in the least. Under these circumstances the fungus is apt to be destroyed by the inflammatory process, so that we cannot always find it in those hairs which we happen to select for examination. Often, too, in neglected cases, some of the hair follicles are obliterated, and a certain amount of permanent Alopecia may result. Occasionally, large segments of circles of Ringworm (*Tinea circinata*) extend round the front of the neck beneath the beard from ear to ear, and patches of Ringworm are not uncommon on other parts, especially over the top of the sternum and on the wrist, owing to the patient rubbing his chin against them.

The disease which is most apt to be mistaken for Ringworm of the beard is pustular Eczema of the hairy portions of the face (*Eczema pilare faciei*—*Impetigo menti*—*Sycosis non-parasitica*). The following points, however, should prevent error:—

Eczema impetiginodes.

1. A very common affection.

2. Not contagious.

3. Initial lesion, pustules at the orifices of the follicles, which dry into yellow crusts.

4. When fully developed, skin is reddened, infiltrated, and studded with pustules or crusts. Tubercles are uncommon, and large indurations never observed.

5. Hairs unaffected and adhere firmly, and are extracted with pain, though, in neglected cases, some slight permanent Alopecia may result from deep suppuration or the pressure of the crusts.

6. No parasite to be detected.

7. Occasionally a similar eruption is seen elsewhere, especially on the head at the edges of the hair, on the eyebrows, and on the edges of eyelids.

The following points serve to distinguish Syphilitic eruptions from Ringworm of the beard:—

Syphilitic Eruptions on the beard.

1. History of syphilitic infection, it may be many years before.

2. Eruption circumscribed and patchy.

3. Coppery tint of the patches sometimes distinct.

4. Crusts often greenish in tint.

5. No parasite to be detected.

6. Hairs healthy.

7. Other manifestations of Syphilis often found elsewhere.

Tinea Sycosis.

1. Much less common, although by no means so rare as many suppose.

2. Highly contagious.

3. Initial lesion, small erythematous spots, healing in the centre and spreading at the edges.

4. These same characters may be present to a certain extent, but, in addition, large tubercles and fleshy indurations are apt to appear studded with stumps of hairs.

5. Hairs thickened, their colour altered, brittle and apt to break off close to the skin, and many can be pulled out without the slightest uneasiness. Some permanent Alopecia a much more frequent concomitant.

6. The *Tricophyton* discovered in some of the scales and hairs.

7. Sometimes patches of Ringworm detected on the neck, or on other parts, particularly over the top of the sternum and on the wrists.

Tinea Sycosis.

1. History of having been shaved at a barber's shop, or occasionally of Ringworm in other members of the family.

2. Eruption more diffused, as a rule.

3. Colour of the eruption dusky red.

4. Crusts brownish.

5. *Tricophyton* discovered in some of the hairs or scales.

6. Hairs affected in the manner formerly mentioned.

7. Ringworm occasionally found on other parts or in other members of the family.

(d) *Ringworm of the Nails* (*T. Tricophytina unguium*).—This is an exceptional condition, and when it does occur, usually only one or two of the nails at their anterior extremity are involved. The affected nail gradually loses its transparency, becomes opaque, dry, discoloured, and thickened, and near its free extremity is separated from its bed by a mass of soft nail-substance. As the disease advances the nail becomes very brittle, the longitudinal striæ

become very marked, and it has a great tendency to split longitudinally. The fungus, which is found beneath the nail, and which is readily proved to be the *Tricophyton* by microscopic examination, has a greyish-white colour, while that of *Favus* is yellow, and presents different microscopic characters, as formerly mentioned.

It is right to state that other diseases of the nails, such as those frequently met with in Eczema, Psoriasis, Lichen Ruber, etc., present very similar appearances—so much so that the diagnosis can only be made by a reference to the character of the accompanying eruption, and by a microscopic examination of the nails.

ORIGINAL COMMUNICATIONS.

ON MENINGEAL TUBERCULOSIS OF THE CEREBRAL CONVEXITY.

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THE following cases belong to a group which possesses some pathological, clinical, and medico-legal interest. In relation therewith may be mentioned the "Staunton case"—not, however, with the view of reopening any of the questions which fell under debate in relation to that case; nor, indeed, of referring to it further than as illustrating the positive medico-legal importance of cases such as those it is proposed to briefly sketch in outline here.

It will suffice to bear in mind how lively was the discussion that arose in the Staunton case as to the existence or not of tubercular meningitis; or, again, of meningeal tuberculosis of the convexity of the brain,—as to the presence or absence of general paralysis of the insane; and, again, of cerebral sclerosis,—and as to the true nature of the small milletseed-like bodies described as in the inner meninges of the brain. The cerebral symptoms, too, in that case were of brief duration and of ambiguous character.

Passing to the cases now brought forward, the principal points in the first of the following cases were briefly these. In a patient, sinking with advanced phthisis pulmonalis, we find life somewhat abbreviated by the on-coming of cerebral symptoms due to extensive meningeal tuberculosis of the convexity of the brain, with incipient inflammation. And we particularly note the short duration of any cerebral symptoms, and their slight and ambiguous character, notwithstanding the considerable lesion of the brain. There is no reason why death should not have been brought about in a similar way early in the course of the case; and it is evident, therefore, that under certain contingencies, such as may, and will, every now and then occur in practice, cases of this kind lead to more or less obscurity as to the manner and cause of death, and to possible medico-legal enigmas. There are many other points raised by this case, into which the limits of time will not permit me to enter fully—as, for example, its bearing on questions of cerebral localisation, and the etiology of the peculiar respiration observed.

Case 1.—T. O., 70th Regiment, admitted May 16, 1861; died August 15, 1878, aged forty-one years. The patient, formerly maniacal, and latterly for many years fairly quiet, tractable, and somewhat demented, became the subject of pulmonary phthisis of a somewhat latent form, and first noticed between three and four years prior to his death. The pulmonary destruction was more advanced in the right lung than in the left, and now and then it was attended with attacks of bronchitis, accompanied or not with symptoms of the asthmatic order; while, latterly, diarrhoea made its appearance from time to time. Not until eleven days before death did he become permanently bedridden. Four days before death he was very feeble, emaciated, and his pulse was rather slow. Thus he remained, without any marked alteration, until the day before death, when he was very prostrate and feeble, and cerebral symptoms were first noticed. For on this day he was mentally dull, heavy, apathetic, drowsy; took little notice of his surroundings; paid but little attention to questions put, or to his comforts, wants, or inconveniences; when addressed, was slow to understand, and brief, or even irrelevant, in his replies. Swallowing was slow

and difficult, and some hiccough was noted. The temperature was 98° in the left axilla. There was no perceptible convulsion, spasm, rigidity, paralysis, or paresis. From fraction of minute to fraction of minute the pulse-rate varied from 78 to 96; and the respirations, 26 on the average, also varied in frequency—in fact, a modified Cheyne-Stokes' respiration was present. On some occasions there was only an ascending and descending respiratory rhythm; but at others a distinct apnoeal period, though only a brief one, was added. In the latter event the respiratory period consisted of five or six respirations, gradually increasing in fulness and loudness, and it alternated with a recurrent pause in breathing, of five or six seconds' duration, which completed the respiratory cycle. At first the pulse was rather slower during the respiratory period; but in some later observations no difference in pulse-frequency was perceptible in the two periods. Subsequently, respiration became more regular, and varied from 20 to 30 per minute, the pulse simultaneously becoming fuller than it had previously been. But again the modified Cheyne-Stokes' respiration returned later in the day. The left hand was swollen and oedematous; the feet were very slightly oedematous. The urine was free from albumen.

In consequence of my absence on the next day (the day of death), I can merely state the information given me, that the condition remained much the same—the pulse being feeble, and the dysphagia persistent; that the patient became more dull and drowsy, took little or no notice of his surroundings, and made no reply to any questions. He died at 6.20 p.m.

Necropsy, fifty-six hours after Death.—Body emaciated. (Only the more important points will be mentioned.) The general vascularity of the meninges was not extreme, but the meningeal veins were turgid over the posterior half of the upper aspect of the cerebrum. There was patchy opacity of the arachnoid, principally observed at the vertex, as well as considerable pia-matral oedema, distributed as to its relative degrees in like manner as the opacity of the arachnoid. *Right cerebral hemisphere:* Over the superior surface of the hemisphere, and partially embedded in the pia mater, both in its meshes and immediately beneath the arachnoid, were numerous, minute, whitish, tubercular granulations, many of which had formed cohesions with the cortical grey substance, so that upon their removal with the meninges, the cortex was left in a slightly eroded state; for upon stripping off the meninges, the tubercles separated together with them. This erosion especially affected parts of the posterior half of the first and second frontal convolutions, the lower half of the ascending frontal, and parts of the supra-marginal, angular, and first and second annectent gyri. Some of the slight adhesions seemed to occur independently of the presence of tubercles at the very point of adherence. At several parts the granulations were collected into dense constellations, which by their coalescence had formed tubercular nodules, sunken in the anfractuositities, and attached to the subjacent grey cortex, portions of which adhered to the nodules when they, with the pia mater, were removed, thus producing erosions more considerable than those already named. These nodules were highly vascular and hyperæmic—so much so that a purplish background, formed by injected vessels permeating each cluster between its constituent granulations, was in vivid contrast with the whitish sections of the soft, succulent granulations themselves. A little yellowish, soft material also surrounded one of the nodules. One of these nodular clusters was near the middle of the right second frontal gyrus, sunken in a sulcus of the tertiary order; and connected with it was another which invaded sulci of the third frontal gyrus. A third reposed in the interparietal fissure, between the postero-parietal lobule and the supra-marginal convolution. Here, also, was observed a large, hardened, apparently atheromatous, pervious vessel, surrounded by greyish and dirty-whitish tubercular infiltration, and this by considerable hyperæmia. Over the superior aspect of the *left* cerebral hemisphere the condition of affairs was much the same, but here the granulations were sparse and the nodules absent. On this hemisphere the superficial erosions of the cortex, left on removal of the tubercular meninges, were principally on the supra-marginal and angular gyri, and, in less degree, on the second frontal, the two ascending, the superior parietal, and first and second temporo-sphenoidal convolutions. None were observed on the internal or inferior

surfaces of the cerebrum. The nodules attached to the pia mater, examined under the microscope, presented fatty molecules, molecular *débris*, granule cells, increase of nuclei, and small round highly-staining cells. The whole of the brain was flabby; the convolutions were slightly wasted in the frontal and parietal regions, and were somewhat softened. The grey cortex was pale in front, but of considerable vascularity in the middle region; the orbital cortex was more healthy. The white substance of the brain was of diminished consistence, slightly hyperæmic, and spotted with numerous puncta cruenta. The lateral ventricles contained turbid serosity. The fornix and corpus callosum were somewhat softened, as also were the basal ganglia. The cerebellum was diminished in consistence, of no extreme vascularity, and to its surface were slight adhesions of the pia mater. The pons Varolii and medulla oblongata were flabby. *Weights:* Right cerebral hemisphere, 19½ ozs.; left, 19½ ozs.; cerebellum, 4¾ ozs.; pons and medulla oblongata, ¾ oz. As for the other parts, I may briefly summarise by saying that there was the general wasting of the frame usual in phthisis; that the heart was small, but not markedly changed in structure; the aorta nearly healthy; that the liver was small, soft, flabby, and of a slightly yellowish hue; that there was slight incipient tuberculosis of the kidneys, and slight tubercular ulceration of the small intestine, the mesenteric glands, too, being enlarged and tubercular, as also were the bronchial glands, one of which was calcareous; and that the lungs showed lesions of phthisis. In the left one was extreme, almost general, tuberculosis, with numerous small cavities. In the right one was great excavation, riddling the upper, the middle, and part of the lower lobe; the cavities having a somewhat horizontal disposition. The lung was bound down by old, close, general, leathery, pleuritic adhesions. *Weights:* Right lung 50 ozs., left 29 ozs.; liver 43½ ozs.; spleen 7¾ ozs. capsule thickened and adherent; left kidney 5½ ozs., tubercular, its capsule separated fairly well; right kidney 4½ ozs., adherent to adrenal.

Remarks.—The mental symptoms supervening on the meningeal and cortical tuberculosis, though decided, were not distinctive. The respiratory condition, which may be deemed an exaggeration of that frequent in tubercular (basal) meningitis, was a feature of interest in this case, in which there was freedom from meningitis of the base. Here the so-called cortical motor zone was somewhat affected, and yet without decided motor symptoms being observed, the inability to stand during the last two days of life being apparently part of the general asthenia then existent. The supposed cortical visual centres were considerably affected, but without prominent visual symptoms.

Case 2.—J. S., soldier, 59th Regiment, admitted June, 1877, then aged thirty-one; died February, 1880. There was a history of primary syphilis, incurred at Chatham in 1870, of jaundice and also of ague, in India in 1872; of bronchitis in India in 1875; of being under medical observation for suspected mental disease in 1876; of debility and of mental aberration in 1877. Exposure to tropical heat and climate was the cause assigned for the mental disease. Delusions were associated with hallucinations of hearing and of touch, listlessness, failure of memory and of attention, and a tinge of depression accompanied. Pulmonary tuberculosis, onychitis, and finally slight pleurisy, preceded death. For two or three days before decease he complained of "pain all over" him, and on the last day of life was slightly delirious, loquacious, and chattering to himself. No spasm or paralysis was observed.

Abstract of Necropsy.—Body emaciated. Dura mater unusually adherent to bone. Some arachnoidal opacity, especially over the right cerebral hemisphere; and some wasting of brain. Moderately firm, whitish granulations over the posterior part of right angular gyrus; yellowish nodules just above middle of right ascending parietal convolution partly embedded in the grey substance, partly projecting from its surface, some being buried in the fissure of Rolando and all being so connected that, while bringing away with them portions of the grey cortex, they separated together as an irregular mass formed by the fusion of several nodules which were caseous internally, and connected by firm fibroid tissue. On the under surface of the right occipital lobe the membranes were the seat of numerous, almost confluent, dirty-whitish granulations, which were more

less caseous on section, and formed an irregular layer, beneath which the convolutions were softened, pulpy, and of dull-red hue. Scattered granulations also existed over the posterior half of the external surface of the right temporo-sphenoidal lobe, and a state of grey cortex, such as just described. Similar granulations were seen on the under surface of the right temporo-sphenoidal lobe. There was a small, dirty-whitish-yellow nodule in the posterior part of a corpus striatum; and a slightly roughened, sanded appearance of the ependyma of the fourth ventricle. Left lung: Thickly studded with granulations; yellowish cheesy masses beneath pleura; old pleuritic adhesions. Right lung: Much the same changes, but less advanced; pleura beset with tubercles; slight recent pleuritis. Spleen studded through and through with large yellow nodules; also one such in left kidney. Caseous abdominal glands, especially near pancreas; old dense adhesions of liver, enlarged glands at its portal.

Remarks.—Here (as to tuberculosis) mental symptoms were of short duration, and motor absent; the tuberculosis was of the convexity and posterior base of right cerebral hemisphere. Here also, with early vivid and long-continued auditory and tactile hallucinations, tuberculosis finally befell part of the supposed right cortical auditory centre, and parts adjoining the supposed right tactile centre; while the right angular gyrus, and part of the right (so-called) cortical motor zone also suffered, but without the production of obvious visual or motor symptoms.

ON THE EARLY TREATMENT OF PROSTATIC OBSTRUCTION. (a)

By REGINALD HARRISON, F.R.C.S.,
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On a previous occasion I had the honour of making some observations to the Fellows of this Society on Acute Inflammation of the Prostate. This evening I desire to submit for consideration certain views in reference to the early treatment of prostatic obstruction, and to elicit comment thereupon.

It may be generally stated that of males who have passed fifty-five years of age, about one-third have enlargement sooner or later of the prostate; of these, about one-half suffer in some degree, whilst the remainder escape without experiencing any inconvenience therefrom.

These figures therefore furnish us with two classes of elderly persons—namely, those who have large prostates and suffer from them, and those who have them but do not.

I take it that so long as micturition continues to be efficiently and painlessly performed, no one is at all likely to complain of his prostate, though it may be evident on examination that it has exceeded its normal dimensions. At least, such instances are very exceptional. It is exceedingly interesting to analyse the class of cases where, though the prostate is enlarged, it does not obstruct. I have examined a considerable number of them, and find that there are at least two conditions which explain how it is that micturition is not interfered with.

The first is where the hypertrophy is mainly in the direction of the rectum, in which case the relations of the prostatic urethra are not altered.

The second is where the prostate as it grows leaves channels between the masses of hypertrophy, along which urine uninterruptedly finds its way. This lobulated form of hypertrophy is by no means uncommon.

A careful consideration of these conditions led me to the belief that to a useful extent they were capable of imitation by artificial means; that, in fact, though we might be unable to prevent this change taking place as old age advanced, we could so direct and influence the growth as to cause micturition to be as little interfered with as in the natural conditions—probably accidental—to which reference has been made.

In a considerable number of cases of prostatic obstruction the impediment to micturition is a gradually increasing one: it commences with slight interference, and terminates sooner or later in the development of a complete obstacle, not only to micturition, but to the passage of a catheter into the bladder. In other instances the latter emergency is a

sudden one, and is probably traceable to some accidental circumstance interfering with the propulsive power of the bladder, which has long been carried on with difficulty. In these respects the prostate has its analogies with the remaining portion of the urethra when it becomes the seat of stricture.

It is remarkable how slight an elevation, provided it be central, in what is usually called the third lobe is sufficient to effectually obstruct, thus indicating that the impediment to micturition is just as mechanical in its nature as that in other forms of organised structure. If the obstacle to micturition is a mechanical one it seems only reasonable to conclude that it is capable of being dealt with by corresponding means.

The teaching of the present day is, however, to the effect that mechanical treatment is not to be employed until either retention occurs, or the bladder becomes inflamed; then catheters may be passed, and the bladder subjected to a variety of mechanical expedients. But why, I would ask, should we not apply the same principle of treatment to commencing obstruction as we do on the appearance of urethral stricture?

The answer generally advanced is, that it will produce irritation. But is there any evidence that the prostate is so susceptible to mechanical interference when it is properly applied? On the contrary, I believe there is none. If there is one organ in the body more long-suffering than another, I am sure it is the prostate gland. We cut it in lithotomy, we remove portions of it with our fingers or the forceps when it gets in our way, we enucleate tumours from it, it gets many a hard blow from an ill-directed catheter, it is a frequent neighbour of about the most virulent discharge the human body is capable of producing,—and yet how many specimens illustrating inflammation of it, or its effects, can the museums of this vast metropolis furnish? I submit there is no evidence to prove that the prostate is ever hurt by the employment of well-directed mechanism; on the contrary, I believe, and I have found, that it will yield to its influence far more readily, as a rule, and show more tolerance of it, than the majority of urethral strictures. We might just as well say, because we occasionally find strictures exceedingly irritable, that their treatment was to be postponed until either retention of urine or cystitis were provoked.

But even if the prostate were intolerant, it seems to me in the class of cases to which I am referring, where there is some degree of interference with micturition, it is only postponing the evil day until the necessity is greater and the difficulty more apparent. If there is danger of irritating the prostate, it is none the less because its size is larger. Having regard to those two pathological conditions of the enlarged gland to which I have referred, where micturition is only slightly or accidentally interfered with, if at all, I have been for some time employing dilatation by specially adapted bougies with the objects of either preserving the relations and dimensions of the prostatic urethra by allowing it to grow in directions where it is not thus interfered with, or of causing channels to be formed in the hypertrophic growth through which urine under all circumstances may find its way.

The bougies I have had made for this purpose are gum-elastic, with an expanded portion an inch from the tip. They are from two to four inches longer in the stem than ordinary instruments, in order that the expanded portion may fully enter the bladder. In this way the prostatic urethra is subjected to gradual pressure both at the time of insertion and withdrawal of the instrument. The bougies are made in various sizes, so that different degrees of dilatation can be effected. At first the instruments may be passed once in forty-eight hours, then twice or daily, and in some instances I have caused them to be used morning and night with good results. In the great majority of cases in which these instruments are employed, if a suitable size be selected to commence with, and larger ones are not proceeded with too rapidly, I find no irritation is aroused. On the contrary, greater toleration of urine follows their employment, owing to the ease and completeness with which the bladder is emptied. In a few persons it is necessary to establish what has been spoken of as a state of instrumental toleration. The frequency of doing this depends, as a rule, more on the manipulator than on the instrument, though the election of the latter is a matter of importance.

In establishing tolerance to catheters in patients who

(a) A paper read at the Medical Society of London, March 13, 1882.

present symptoms which give little hopes of their postponing very long the necessity for such means, regard must be had to circumstances other than those included in the selection of instruments and their skilful employment.

Cases are sometimes met with, where persons have an apparently unnatural degree of intolerance to instrumental interference with the urethra, even of the gentlest kind. Many of these would be largely benefited by such treatment, but they are debarred from the advantage thereof by what almost amounts to an idiosyncrasy. I have carefully analysed several of these cases, and, though the statement may appear in a sense paradoxical. I have found persons passing urine which in its composition seemed to me to be fully as irritating as any instrument could well be to the urethra. I have been able to trace this extreme sensitiveness of the urethra to the presence of uric acid crystals in unnatural quantities and form in the urine; and by preliminary treatment, having for its object the correction of the urine, I have had the satisfaction of making patients, previously intolerant, capable of undergoing with the fullest advantage the necessary treatment.

In advocating the early treatment of prostatic obstruction by the means to which I have referred, I have already had sufficient proof of its efficacy. I have demonstrated that the regular use of the bougie is capable of so moulding the hypertrophic growth as to prevent obstruction occurring. I have observed, and am observing, cases where frequent and painful micturition, in addition to other symptoms, has indicated that an impediment is commencing to form. I have seen such patients, by the use of these instruments, regain the power which apparently they were thus beginning to lose.

If the treatment is commenced sufficiently early, though the prostate may be hypertrophied, obstruction to micturition is effectually prevented. When the prostate has already become enlarged, and there is also difficulty in micturating, this treatment will be found equally efficacious. In either case, it is necessary to continue it long after all indications of obstruction have ceased. When, however, the patient has acquired the habit of self-catheterism he is loth to forego it, as any slight inconvenience the operation may occasion is not to be put against the obstruction to micturition that usually terminates all cases where an enlarged prostate is left untreated when mechanical interference becomes a necessity.

It is not my intention here to discuss the more strictly operative measures which have for their object the section of that which obstructs. These proposals, advocated and practised by Mercier, have recently received some support from Teevan in this country, and Gouley in New York. I have an instrument, which was given to me by my last-mentioned friend when I was in America a year ago, for the performance of this operation.

Prevention is better than cure, and though not rejecting Mercier's practice as an unjustifiable proceeding, I do not think, in its present form, it is likely to occupy a very prominent position. If, for instance, I wanted to incise an obstructing prostate, I would sooner do it with my knife, as in lithotomy, and so do it certainly and precisely, rather than with a concealed bistoury, and run the risk of a hæmorrhage which I had no sure means of controlling.

In venturing to bring forward my views on the treatment of enlarged prostate, so far as it relates to obstructing micturition, it is with the feeling that surgery has done but little in preventing the progressive development of a condition which is often followed by very distressing and sometimes embarrassing results—results which we know of, and stand by to palliate, though we have hitherto been helpless in preventing them.

ELECTROLYSIS IN ENLARGED PROSTATE.—Dr. Hoehling (Surgeon U.S. Navy) writes:—"I would like to suggest to our electro-therapeutists the trial of electrolysis in enlarged prostate. This is such a common condition after the age of fifty, and so difficult to relieve with our present modes of treatment, that anything which holds out some promise ought to have a judicious trial. In order that such trial may begin under the most favourable auspices, I publish this suggestion, for the information of those best qualified to make it, rather than undertake it with my limited experience in electro-therapeutics."—*New York Med. Record*, March 18.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LIVERPOOL ROYAL INFIRMARY.

SERIES OF HERNIA CASES.

(Under the care of Mr. RUSHTON PARKER.)

(Continued from page 227.)

Case 5.—*Inflamed Omental Inguinal Hernia—Peritonitis—Herniotomy—Subsequent Vomiting, Constipation, and Distension—Recovery, with Radical Cure of the Hernia.*

DANIEL K., aged fifteen, admitted September 8, 1880. Two years previously this boy was hit in the left groin by a cricket-ball, about six months after which there appeared a hernia, which he easily reduced two or three times a day. For a month previous to admission the hernia had been irreducible, but without inconvenience until September 5, since when he had suffered pain and tenderness in the lower part of the abdomen, the bowels being open each day. He was attended by Mr. Richard Williams, who, finding that he was getting worse and showing evidence of partial peritonitis, transferred him to Mr. Parker's care at the Infirmary. Shortly after admission he lay on his side, with his knees and hips bent; his breathing shallow, accompanied by fretful sounds, indicative of pain. The belly was flat, concave, tender below, and somewhat painful. In the left scrotum was a swelling above the testicle, oval, smooth, and doughy, slightly elastic, not tympanitic, and not feeling as if holding fluid, without impulse on coughing, and itself quite devoid of pain or tenderness. The swelling was about the size of a small walnut, and nothing could be made out as to whether or not it had a neck passing up the inguinal canal. Ether was given, and herniotomy was performed the same night, two or three hours after his arrival, under the spray and all the proper precautions of Lister's carbolic acid method. The sac was cut into at once, and found filled with omentum, and a drachm or two of turbid sanious serum. There was no tightness of the neck or appearance of constriction in the omentum lying there, but this membrane was brightly and finely injected in patches, on which were smaller patches of greenish-yellow lymph. The omentum was tied in several places with cutgut, cut off below the ligatures, and the stalk passed up into the abdomen. The thickened sac was left undisturbed. A catgut drain and catgut sutures were used; carbolic gauze dressings were applied, and changed on the second and fifth days. Rapid healing of the wound occurred in a few days, by first intention, except the site of the drain, which granulated and closed in a few more. Just before operation the temperature was 103°, and the pulse fine and weak, though its number is not recorded. After operation one-sixth of a grain of sulphate of morphia was given subcutaneously, and a hot bottle applied to the feet.

On the *second day* the abdominal tenderness was gone. The temperature 100° and the pulse about 120 at mid-day. He vomited green fluid and was thirsty. The tongue was rough and furred yellow, and ice was given to suck. Evening temperature 99°, pulse 128, and respirations 30 per minute. Still slight vomiting and thirst, but no tenderness. Sulphate of morphia subcutaneously, one-third of a grain at 1 p.m., and one-fourth of a grain at night.

Third Day.—1 p.m.: Temperature 101.5°; pulse 120. Morphia half a grain, as before. 5.30 p.m.: Temperature 100.2°; pulse 120. 8.45 p.m.: Temperature 102°; pulse 132. Morphia one-third of a grain. Green liquid vomit at 1 p.m., and about once again in the previous twenty-four hours. At night, distension of the belly noticed, and slight delirium, but no tenderness, vomit, or sleep all afternoon.

Fourth Day.—At 1 p.m., pulse 120; a single vomit of yellow-brown fluid. Tongue thinly coated with brown fur. Half a grain of acetate of morphia (in the temporary absence of the sulphate) under the skin.

Fifth Day.—Noon: Belly a little fuller, but quite slack, and free from pain or tenderness. Slept soundly now and then for two hours or so at a time during the last two days, during which the delirium increased and then declined. Morphia one-third or one-fourth of a grain thrice in the night.

THE problem of providing the vast and rapidly increasing population of London with water has for generations occupied the attention of the public and the Government, but certainly cannot yet be said to have received a satisfactory solution. When the New River—a monument of enterprise and intelligence—was found inadequate, men less far-seeing than Sir Hugh Middleton turned not unnaturally to the Thames as offering an apparently suitable, and certainly an inexhaustible, source on which to draw for all time; and several companies were formed, which took their supplies at various points between London-bridge and Chelsea. The fearful mortality that prevailed in South London during the cholera epidemic of 1848-49 awoke the authorities to the growing pollution of the river, and by the Water Companies Act of 1852 the Southwark and Vauxhall Company was compelled to follow the example of the Lambeth, and to seek a purer supply from a point higher up. The change, however, was effected too late, and in the two following years the districts depending on that Company for water suffered even more heavily than they had in 1848-49. In the next epidemic, of 1866, these districts experienced no higher mortality than the metropolis in general, but the accidental pollution of the Lee by the bursting of a sewer was followed by a sudden and severe outbreak, strictly localised in the area supplied by the East London Water Company, which alone drew its supply from that river below the point of contamination. Grave doubts were now entertained as to the propriety of longer employing rivers under any circumstances as a source of water for domestic uses, and found their chief exponent in Dr. Frankland, who, as the leading member of the Rivers Pollution Commission, went so far as to pronounce all attempts at purifying the Thames absolutely hopeless, and, indeed, to condemn all rivers as unfit for the purpose. The success, however, that has attended the adoption of various schemes for the exclusion of crude sewage

from watercourses, and its purification by irrigation over cultivated land, has been so great as to lead many authorities to believe that with proper precautions we may safely resort to rivers for the supply of large cities to whose demands natural springs and wells may be unequal. So at least it seems from the chemist's point of view. Messrs. Crookes, Odling, and Tidy have reissued their monthly report to the President of the Local Government Board for the year 1881, in a collective form with introductory letter and additional tables. They appear to have performed their work conscientiously and without bias. They have not only given the physical properties and the amount of chlorine, nitrites, nitrates, and free oxygen in each sample, but they have employed each of the three rival methods of estimating the organic matter—viz., Wanklyn's ammonia, Frankland's organic carbon, the new permanganate process for estimating the "oxygen required" for oxidising the organic matter, and Schützenberger's calculation of the free oxygen. The generally close correspondence between these is satisfactory from a scientific point of view, as tending to show that water-analysis is not so uncertain as some would have it.

Chemically considered, the water supplied to London will favourably compare with all but the very best supplies to provincial towns. For many weeks in the year each company supplies water of a perfectly blue colour; and even the turbidity, which is most marked during and at the breaking-up of frost, and which indicates imperfect filtration, is under such circumstances unavoidable, and being demonstrably due to the suspension of minute particles of clay, may be deemed a not dangerous pollution. Notwithstanding occasional variation from local causes, the Thames water at Hampton, where the London companies now draw their supplies, contains no larger amount of organic matter, and actually less organic nitrogen, than it does at Lechlade, 116 miles higher up, and before it has passed any place worthy the name of a town. Last August both the Glasgow (Loch Katrine) and Birmingham waters contained, according to Dr. Frankland himself, twice as much organic matter as the New River. This comparative purity of the Thames at Hampton favours a belief in the power of oxidation to purify running streams, and seems to prove that the river does not contain the collective impurity of its entire course.

It may be urged, with much truth, that chemistry knows nothing of the difference between living and dead, specific and non-specific, dangerous and inert organic matters, that the reservoirs at Caterham and Reigate when they had received a small addition of enteric fæces would not have shown any appreciable deterioration, or any increase in any impurity beyond the limits of error, although their use was in each case followed by a sudden outbreak of fever; but to such accidents all waters are open, and the analogy of sewage irrigation—which has not realised the forebodings of its early opposers, even when enteric fæces have been known to be present—tends to inspire greater confidence in the self-purifying power of large sheets of water in motion, and exposed to the influence of air and vegetation. All organic matter is theoretically an impurity, but so is the carbonic acid in the air. Both are questions of degree. Even the "moving organisms" on which some lay such stress may be discovered, not only in the purest streams, but in freshly collected rain. Of far more real value in support of harmlessness of chemically pure river-water, collected, filtered, and stored with due precautions, is the absence of any evidence that towns thus provided show any higher mortality than those drawing their supply from wells. Dr. Tidy's statistics of eighteen provincial towns of each class, and with nearly equal aggregate populations, extending over ten years; and, what is more pertinent to the question before us, those collected by Mr. Baldwin Latham from the

districts supplied on the one hand by the Southwark and Vauxhall and the Lambeth Companies, and on the other by the East Kent Company's chalk spring water, show no appreciable sanitary difference. Indeed, as regards diarrhoea, diphtheria, and in South London enteric fever also, populations supplied by rivers have an advantage.

Carefully collected information of this sort may serve to allay the fears of those who are told that they are drinking "diluted sewage"; and to avert such a "scare" as that under the influence of which a short time ago the rate-payers were threatened with a crushing burden for a grand new water-supply. The Local Government Board should not, however, for a moment relax its endeavours at the more complete exclusion of sewage from the Thames and its tributaries.

RECKLINGHAUSEN ON MULTIPLE FIBROMATA OF THE SKIN.

PROFESSOR VON RECKLINGHAUSEN, of Strasburg, whose essay "On the Lymphatic Vessels and their Relation to the Connective Tissue," 1862, has sufficed almost of itself to keep the author's name fresh in professional esteem, now comes forward with another contribution to scientific medical literature. (a) The occasion of its publication is the twenty-fifth anniversary of the founding of the Pathological Institute by Virchow at Berlin, and the work bears on the title-page that it is a "Festschrift" offered to that illustrious teacher and leader of men.

The primary subject of the essay was a case of multiple fibromata of the skin in a woman, aged fifty-five, who was brought to the Strasburg Hospital in January, 1879, and died, a few hours after admission, of bleeding from the lungs. The occasion was used to make a thorough examination of the external tumours, of certain co-existing tumours (neuromata) on the course of some of the nerves (lower extremity chiefly), as well as of a very obscure condition of the internal organs and their serous coverings. Subsequently the author had the opportunity of observing another case of multiple fibromata of the skin during life. Photographs are given of both cases. Besides the discussion of those two cases, the essay contains an elaborate *resumé* of all the available recorded cases of multiple fibromata and multiple neuromata, which will save the time of all subsequent inquirers into the subject. Cases of multiple morbid products in the body used to be the favourite opportunities of demonstrating the existence of a dyscrasia or diathesis or morbid state of the blood. When the structural complexity of the tissues came to be recognised, that general point of view was gradually abandoned, and attention was concentrated on histological analysis. When all the details are mastered, there can be hardly any doubt that we shall come back to the generalising standpoint which had for a time to be given up. But Professor von Recklinghausen's judgment upon his first case will show how far off we still are from the simple generalisations of pre-microscopic times. The skin of the whole trunk, head, and limbs of the body examined was covered with soft, fibrous tumours (*fibroma molluscum*); there were fibrous thickenings (so-called neuromata) in the course of several of the nerves (branches of the sacral plexus, of the anterior crural, several intercostals, frontal, and supraorbital); there were fibrous nodules in both breasts. Leaving the external parts, there was some clear fluid in the abdomen, with adhesions in various parts; numerous small nodules on the serous coat of the stomach, mostly of miliary size and somewhat transparent; small outgrowths on the capsule of the liver, not amounting

(a) "Ueber die multiplen Fibrome der Haut, und ihre Beziehung zu den multiplen Neuromen." Von F. von Recklinghausen, Professor in Strassburg. Berlin, 1882. Pp. 138. Five plates.

to circumscribed nodules like those of the stomach; on the surface of the diaphragm, right side, soft villous-like outgrowths; several large nodules, stalked or sessile, on the serous surface of the small intestine, two of them being of hæmorrhagic appearance and sarcomatous structure; on the surface of the left kidney numerous white patches with translucent miliary nodules in them, and a few whitish nodules in the substance of the papillæ; in the liver a few small red spots with white centres; in the mucous membrane of the jejunum, several small nodules with one small ulcer; small ulcerations in Peyer's patches, with here and there a small nodule, not caseous, in the submucosa; in the lower part of the ileum the ulcers had become confluent and had thickened edges; a few follicular ulcers in the colon. Coming next to the thorax, the pericardial surfaces were united by adhesions, in the midst of which lay nodules, but these were "not undoubted fibromata"; small excrescences on the mitral valve; on the posterior wall of the trachea numerous miliary nodules (one as large as a pea), translucent, tough, sessile, with vascular surroundings; in both lungs numerous small centres of induration, partly in the form of miliary nodules, smooth-walled vomicæ in the right lung, and in the left a few circumscribed grey hepatisations of unusual dryness. Lastly, two or three soft tumours were seated on the periosteum of each tibia in front.

What, then, does Professor von Recklinghausen make of this extraordinary case, the post-mortem record of which he has drawn up with so much fidelity and completeness? He takes the fibromata of the skin as his point of departure; these were formations chiefly of the lower layers of the cutis vera (involving sweat-glands and hair-follicles in various ways), and they sometimes sent prolongations downwards, into which nerve-fibres could be traced. The latter circumstance was a link connecting the multiple fibromata of the skin with the co-existing fibrous thickenings on several of the surface-nerves of the lower extremity, thorax, and forehead; these are called neuromata, although the nerve-fibres are, generally speaking, passive and merely enclosed in the fibrous growth, as in the so-called ganglia which form on certain peripheral nerves where they are exposed to pressure. Both kinds of new formation are therefore grouped under the common name of neuro-fibroma. Further, the neuro-fibroma explanation is extended to the new formations in the interior of the body, or rather to a select few of them. Encouraged by a previous observation made by Sangalli, who also found multiple fibromata of the skin to co-exist with numerous similar nodules of various sizes on the surface of the stomach, the author sought to trace a connexion between the latter and the nerves of the gastric plexus. The nodules on the external surface of the stomach and intestine showed, to the naked eye, characters which distinguished them from the new formations of such diseases as tuberculosis and lymphoma; some of them were too large (cherry or walnut size); the miliary ones were too hard, and were isolated in the muscular coats, whereas tubercles are apt to become confluent on the serosa. Under the microscope they were composed of the same connective tissue as the cutaneous tumours, fibrous, but scarcely at all fibrillar, and with a few small spindle-cells. Lastly, they were not subject to caseous degeneration. But were they in reality connected with branches of the gastric plexus of nerves? Only in the case of one small nodule on the stomach did Professor von Recklinghausen succeed in following a nerve-fibre into the midst of it; the task was accomplished more easily—and a figure is given among the illustrations—for a fibrous nodule of the mesentery. To cke out this somewhat scanty evidence, he adduces the fact that in the teased preparations from two of the stomach nodules

there were found in the midst of the fibromatous tissue a number of large polygonal cells, whose protoplasm was finely granular and without fatty molecules, and whose nucleus was invisible. They were not, therefore, young giant-cells, but more probably atrophied ganglion-cells of the plexus myogastricus. The nodules in the trachea contained true giant-cells, as well as round cells; they had also a "degenerated centre," and they were real tubercles, and not miliary fibromata; so that the absence of nerves in them was the less surprising. The periosteal nodules of the tibia showed nerve-fibres in the sections, but the new growth, which appears to have been more sarcomatous than fibromatous, was not laminated around them. Again, the larger tumours of the serous membrane of the jejunum were also of the sarcomatous kind, and highly vascular, while they had no obvious relation to nerves, not even an accidental one. Lastly, it was not possible to trace any connexion between the multiple fibromata of the breasts and the nerves of those organs; nerves were not even seen in the sections.

Thus far, in the negative direction and in the positive, does Professor von Recklinghausen carry his analysis: to the multiple fibromata of the skin he adds the fibrous thickenings on the external nerves, and he combines both under the name of neuro-fibroma. To these neuro-fibromata of the external surface of the body he inclines to add a few at least of the serous-membrane formations, as neuro-fibromata of the sympathetic. There were, it is true, formations also on the pericardium, on the diaphragm, on the liver, on the kidney, in the trachea, in the lungs, in the liver substance, in the kidney substance, in the mucosa of the intestines, and in the breasts. There were also sarcomatous tumours of the surface of the jejunum, and of the tibial periosteum. What is to be made of all these curious manifestations of disturbed health, does not appear. Professor von Recklinghausen seems to regard them as the ninety-and-nine things that need no explanation. He has been arrested by the co-existence of multiple fibromata of the skin with fibrous thickenings on the course of some of the cutaneous nerves (chiefly at exposed stations), and he has been led into a theory of fibro-neuroma, which does not appear to contain within it any fruitful pathological idea, and which carries him only a little way over the case as a whole. Nothing shows more clearly than this bewildering eclecticism how distant that time is when we shall again be using the simple generalisations, the empirical but still philosophical language of diathesis or dyscrasia, which distinguished the pre-microscopic age.

THE RECRUITING DUTIES OF ARMY MEDICAL OFFICERS.

UNDER recent regulations, army medical officers performing the duty of inspection of recruits on enlistment are made responsible for the accurate record of the age, height, weight, and chest-measurement of each recruit. These are points on which much valuable information may be accumulated and come fairly within the scope of the professional opinion of medical officers. We observe, however, that a short while ago the Earl of Morley, in reply to questions addressed to him by Lord Truro in the House of Lords on the subject of the returns of recruiting, desertions, and fraudulent re-enlistment in the Army, stated that "in future medical officers would be required to give their opinion as to whether a recruit had served before; and a man offering to enlist would not be accepted unless he could satisfy the officer that his answers as to previous enlistment were to be relied upon. Last year the number of fraudulent re-enlistments was 657, and the authorities were very anxious that the crime—for it was

nothing less than a crime—should be checked as far as possible." Now, this is a point which clearly does not come within the scope of the purely professional opinion of medical officers, as it cannot be decided by any evidence of simply medical character, except it be from such peculiarities as occasionally present themselves in the marks of treatment as administered by army medical officers themselves in military hospitals. But as such marks of treatment already form one of the recognised causes for the rejection of recruits they need not here be considered.

No doubt an army medical officer of some years' experience may be expected to possess, and does actually to a great degree possess, the acute and generally accurate power possessed by most military men of differentiating between one man who has acquired from long military service the easily recognised and ineradicable military air, and another who does not present such characteristics. But, as the grounds for decision of the point are simply an instinctive result of military experience, no responsibility should attach to medical officers in connexion with it. In the case, however, of a young man who, having previously enlisted in one district, and deserted after a few weeks' service, offers himself for re-enlistment in another district, the evidence of "the crime" depends chiefly upon points of personal identity with a recruit known to have deserted after previous enlistment elsewhere.

The plain fact is—and this is probably known to the Earl of Morley, as well as to most others interested in recruiting for the Army—that the only remedy likely to be effectual for the desertion and fraudulent re-enlistment of recruits will be found to be the introduction of the system of "military branding," which means simply an almost painless process of tattooing with indelible ink, to be effected immediately on the completion of the final attestation of the recruit. The "military brand," as the outward and visible sign of faith pledged to the Crown and nation, should be recognised as an honourable badge for all sorts and conditions of men in military employ, from the heir to the throne (if holding a military commission) down to the youngest boy enlisted for the "drums," or for duty in the regimental tailor's shop.

THE WEEK.

TOPICS OF THE DAY.

ADVERTING to the recent remarks of Dr. Alfred Carpenter on the subject of the compulsory notification of cases of infectious disease, Dr. Edward Seaton, Medical Officer of Health for Nottingham, fears that it might be inferred that the local Acts which up to the present time have been obtained in furtherance of this object have thrown all the responsibility on the medical attendant. Speaking for Nottingham, he says that borough, in the year 1878 obtained powers under the Local Improvement Act to require every medical practitioner attending an inmate of any building in the borough suffering from an infectious disease, to give a certificate of the nature of the disease from which the patient might be suffering to the occupier or person having the management or control of the building. But the person to whom such certificate is given is required to hand it over to the medical officer of health. This Act, Dr. Seaton adds, is now being carried out at Nottingham with very good results; during the last month 230 cases of scarlet fever and sixty cases of small-pox were thus brought to the knowledge of the local authorities, and in each of these cases suitable measures were taken to limit the spread of the disease. Dr. Seaton states these facts to show that by carrying out the compulsory notification of cases of infectious disease in the way he describes

the required end is obtained in the manner most acceptable to members of the medical profession.

It has been proposed by the Chapter of the Order of St. John of Jerusalem to raise in this country a fund for the special purpose of erecting at Jerusalem a hospice, or free hospital, for the special treatment of ophthalmia, the disease now most severely felt in those parts. For some time negotiations have been pending for procuring from the Turkish Government a site which shall satisfy the sanitary requirements of a hospital; and, should these negotiations fall through, it will be necessary, and possible also, to obtain a site by purchase. The cost of building and furnishing such a hospital is estimated at £2000, or at £3000 if the site has to be purchased, and the Committee consider that an income of from £300 to £400 a year would suffice for the maintenance of five beds for in-patients whose cases might be such as to require special care, and for the payment of a small hospital staff, comprising a medical attendant, a dispenser, and a nurse. Several of the most influential members of the Order in this country have already commenced a subscription in aid of the proposal, which has received the cordial approval of the Prince of Wales.

Leicester Infirmary has recently been the centre of an outbreak of typhoid fever, by which no fewer than ten of the dressers, nurses, and servants have been attacked, and two others have died. Dr. Buck, the Medical Officer of Health, has instituted an investigation, from which it appears that all the victims had drunk raw milk. As the house-drains appeared to be in good condition, an inquiry was instituted into the source of the milk-supply, when it was found that the persons at the dairy farm, including the owner himself, had been affected by similar symptoms. The farm premises were subjected to a searching investigation, and it was ascertained that the well from which the water-supply was obtained was situated near an overflowing and leaky cesspool, and that it stood near the end of the house-drain. An analysis of three samples was made, and it was shown that the water used for domestic purposes, and with which the milk-cans were washed, was quite unfit for use, being polluted with sewage matter. It was therefore inferred that the outbreak in question had undoubtedly arisen from the use of contaminated milk. According to the latest accounts the sufferers were progressing favourably.

The Waterworks Committee of the Manchester Corporation has lately reported that, during the recent depression in trade, the consumption of water for manufacturing purposes has not increased at the same rate as in former years. They therefore consider that it would be undesirable to enter on the new works at Thirlmere Lake, so long as the existing supply at Longdendale continues to be adequate to meet all wants. Mr. Alderman Bennet urged in opposition that the works should be proceeded with energetically, and he moved that the Committee should be instructed to report. On behalf of the Committee it was stated that the moment was most inopportune for any public statement on the subject, as an important arbitration was proceeding with regard to the purchase of land on the banks of Thirlmere Lake. Eventually the amendment was negatived by thirty votes to five, and the recommendations of the Waterworks Committee were accordingly confirmed.

The Corporation of Sheffield have recently erected a hospital for contagious diseases, and have announced their readiness to receive, more especially, cases of small-pox and fever occurring in the borough. The hospital has only been open a few weeks, and not more than a dozen patients have been received; notwithstanding this, Dr. Whitelegge, the resident house-surgeon, one of the nurses, and the cook have all contracted small-pox. It is believed that the disease

was communicated to the house-surgeon by a patient, a resident of Crewe, who was attacked by small-pox whilst on a visit to Sheffield, and died in the hospital. It is stated that there has been something like a panic at the hospital, as nurses and servants who have not been affected by small-pox have nevertheless been more or less out of health, and the impression is gaining ground that there is some defect in the sanitary arrangements of the building. A meeting of the Hospital Committee was at once summoned, when Dr. Hime, the medical officer of health for the district, was requested to take charge of the hospital pending the engagement of another house-surgeon. Later accounts state that this latter gentleman has arrived and assumed charge, and it is also reported that Dr. Whitelegge is only suffering from a very slight attack of modified small-pox. Report has evidently, as usual, not a little exaggerated the state of matters: there has, we hope, been nothing but a panic; that the protective power of vaccination has not been forgotten, though report says nothing about it. People do not get small-pox from insanitary conditions.

In a recent weekly return, the Medical Officer of Health for Bristol reports the case of a barmaid suffering from small-pox having been sent in a carriage-and-pair from a Wells hotel to Bristol, to be taken to the General Hospital, where, of course, she could not be received. She was subsequently admitted to the Sanitary Hospital, and the carriage was immediately disinfected. During his long experience, this gentleman remarks, he had never known a more rash or reckless act than this, of sending such a patient to a populous city, and he hoped the authorities would ascertain whether some persons had not made themselves liable to a prosecution. The patient told him the landlady of the hotel had ordered the coachman to leave her at the house of a relative. The sanitary authorities, on the strength of their Medical Officer's report, have resolved to lay the matter before the Local Government Board.

Several local milk-dealers were recently summoned at the Worship-street Police-court, at the instance of the Vestry of the parish of St. Matthew, Bethnal-green, under the Adulteration Act, for selling milk adulterated with water. The cases were separately proved by Mr. Lapworth, the sanitary inspector of the parish, and the certificates of the public analyst handed in, showing the extent of the adulteration to range between 20 per cent. and 33 per cent. In the cases of two of the dealers, named Lloyd and Davies, however, there was proved to be an absence of cream, on which the magistrate remarked that the defendants had actually sold skim-milk watered. To the defendant Lloyd he said that his was one of the worst cases that had been brought forward, and he should fine him the half of the full penalty of £20. Another defendant was also fined £10, the magistrate remarking that had he known earlier that they were keepers of cows, he would have inflicted the full penalty.

It is stated that a general meeting of the committee and subscribers to the purchase fund for acquiring a park for Paddington will shortly be called, to consider what steps shall be taken in consequence of the rejection of the Bill by the Select Committee of the House of Commons. It is suggested that if a generous donor could only be found, the land in question might yet be rescued from the builders, and a lasting boon might thus be conferred on the inhabitants of North-West London. The fatal mistake on the part of the promoters would appear to have been their attempt to carry the Bill through Parliament themselves, instead of handing it over to some responsible body, such as the Metropolitan Board of Works.

The Medical Acts Commission met at Victoria-street,

Westminster, on the 1st, 3rd, and 4th inst. There were present the Earl of Camperdown (chairman), the Bishop of Peterborough, the Right Hon. W. H. F. Cogan, the Master of the Rolls, the Right Hon. G. Selater-Booth, M.P., Sir William Jenner, Mr. Simon, C.B., Professor Huxley, Dr. Robert McDonnell, Professor Turner, Mr. Bryce, M.P., and Mr. John White (Secretary).

According to latest advices from India, the cholera epidemic, which has carried off so many valuable lives at Bombay, has almost entirely subsided.

THE JACKSONIAN PRIZE OF THE ROYAL COLLEGE OF SURGEONS.

At the quarterly meeting of the Council of the Royal College of Surgeons, held on Thursday, the 13th instant, the above prize was awarded to Mr. William Alexander, of Liverpool, for his essay on "The Pathology and Surgical Treatment of Diseases of the Hip-joint." Mr. Alexander, who prosecuted his professional studies at Queen's College, Belfast, was admitted a Fellow by examination and a Member of the College on June 14, 1877. The subject for this prize for the present year is "Wounds and other Injuries of Nerves, their Symptoms, Pathology, and Treatment," the essays for which must be delivered at the College on or before December 30 next.

THE HOMERTON FEVER AND SMALL-POX HOSPITALS.

The report on the work of the fever and small-pox hospitals at Homerton, belonging to the Metropolitan Asylums Board, during the year 1880, has recently been published. Dr. Alexander Collie, the Medical Superintendent of the Fever Hospital, explains the unusually late appearance of the report on the ground of the small-pox epidemic, which occupied all the time of the medical staff. No feature of importance occurred in the work of the Fever Hospital, which had been of a steady character from the beginning of 1880 until October, when, in consequence of a severe outbreak of scarlet fever, the number of beds had to be raised from 200 to 250. The work then continued of a heavy and harassing description until the close of the year, when the Hospital was quite full. Of scarlet fever there were 769 admissions and 84 deaths—a mortality of nearly 11 per cent. Of enteric fever there were 131 admissions and 17 deaths—a mortality of about 17 per cent. Of typhus there were but 5 cases, and all recovered. No member of the staff contracted fever during the year, but the statistics of the Hospital during the ten years it has been in existence show that seventy-five members of the staff have suffered at different times, and of these no less than nine succumbed. It should be mentioned that the report of Dr. Collie contains particulars of the varied work done by the Fever Hospital for the past ten years, as compared with what has been effected during the same period at two other great fever hospitals of the metropolis, viz., the Fever Asylum at Stockwell, and the Fever Hospital at Liverpool-road. On turning to the report of Dr. Gayton, the Medical Superintendent of the Small-pox Hospital, it appears that at the commencement of 1880 the building was utilised for the reception of fever cases. At the beginning of February, however, the wards were cleansed and disinfected; and from the 8th of that month to the end of the year 813 cases of small-pox were received, and 27 patients suffering from other forms of eruptive disease. Of these, 588 were discharged, and 114 died; and on December 31 there remained in hospital 138, giving a rate of mortality of 16.2 per cent. upon the completed cases. Of the 813 cases of small-pox, 534 had been vaccinated, 80 were said to be vaccinated but presented no evidence by marks, and 199 were confessedly unprotected. The character and severity of the disease varied

much in the different portions of the year, being moderate in the earlier months, decreasing during the summer, but attaining a considerable degree of intensity in the winter season. Amongst the 27 cases not small-pox admitted, there were 11 mothers suckling children afflicted with the disease, and 4 children at the breast of mothers with small-pox. All the non-variola cases were vaccinated at once after admission, and, as a striking proof of the protective power of vaccination, in no single instance was the disease contracted.

THE PARIS WEEKLY RETURN.

THE number of deaths for the thirteenth week of 1882, terminating March 30, was 1314 (705 males and 609 females), and among these there were from typhoid fever 36, small-pox 15, measles 27, scarlatina 4, pertussis 6, diphtheria and croup 68, dysentery 1, erysipelas 11, and puerperal infections 2. There were also 60 deaths from tubercular and acute meningitis, 244 from phthisis, 64 from acute bronchitis, 103 from pneumonia, 101 from infantile athrepsia (16 of the infants having been wholly or partially suckled), and 33 violent deaths (30 males and 3 females). The number of deaths registered for this week is above the mean number of the last four weeks. As compared with the preceding week, there has been a diminution in deaths from typhoid fever, measles, and puerperal infections; and some increase from diphtheria (68 instead of 55), small-pox (15 in place of 13), pertussis, and erysipelas. The hospitals have also admitted 44 instead of 26 cases of small-pox, 98 instead of 70 of typhoid fever, and 46 instead of 32 cases of diphtheria. The births for the week amounted to 1249, viz., 632 males (471 legitimate and 161 illegitimate) and 617 females (454 legitimate and 163 illegitimate): 102 infants were either born dead or died within twenty-four hours, viz., 59 males (38 legitimate and 21 illegitimate) and 43 females (28 legitimate and 15 illegitimate).

A QUEER COMBINATION.

WE have received a note from a Hounslow correspondent, complaining, and with some reason as it seems to us, of a conjoint appointment held by a gentleman who lives a few doors from him. This gentleman combines in himself the positions of School Board Inspector and Sanitary Inspector. Now as, unfortunately, fever and various other infectious or contagious diseases have been prevalent in that neighbourhood, such a combination cannot but seem highly undesirable. Supposing there were no such things as these troublesome maladies, we could easily understand that it might be well to conjoin such offices, or even to pay well a single person to fulfil them rather than pay badly two who could not devote their whole attention to their business. But in the presence of epidemic disease this desirability ceases, and the only way we can see out of the difficulty is for different parishes or districts to conjoin so as to secure a due performance of work in each department by a reasonably well paid official.

PATHOLOGICAL SOCIETY OF DUBLIN.

AT the meeting of this Society held on Saturday, March 18 (Dr. William Stokes, President, in the chair), Dr. J. W. Moore exhibited the thoracic and abdominal viscera of a servant woman aged fifty-five, whose illness had been of four months' duration. She died with symptoms of great respiratory distress. Both pleuræ were thickened. There was complete collapse of the right lung, and partial collapse of the left. From the second rib to the diaphragm a new growth, brownish-yellow in colour, resembling hyaline cartilage, occupied the anterior mediastinum. Posteriorly

a similar growth extended from the third dorsal vertebra downwards to the fourth lumbar vertebra, embracing the bronchi and the innominate artery and thoracic aorta in its route. Pressure on the main bronchi had, doubtless, led to pulmonary collapse. The lymphatic glands were extensively involved in the disease, which appeared to be a lympho-sarcoma. The President showed a series of six specimens illustrating the pathology of resection of the knee-joint. In one case—that of a young lad—there was only synovial disease, characterised by pulpy, frog-spawn-like, gelatinous thickening of the synovial membrane. There was no disease of the bone or cartilages. A second patient was a man of intemperate habits, aged thirty-six, the subject of carious ulceration of the bones. Secondary amputation had to be performed, owing to excessive suppuration. A third patient was a child, aged eight, suffering only from synovial disease—there was no history of traumatism or of struma. The fourth and fifth cases occurred in young lads, and were examples of synovial disease only. In the sixth case there was extensive disease of the bones in an adult; secondary amputation was required. Professor Bennett showed three fractures of the bodies of the vertebrae, exceptional in not involving the spinal canal, and in the fact that in all three there was osseous union. They were examples of the *fracture par écrasement* of Malgaigne. In one case the fourth, and in another the first, lumbar vertebra was fractured. In both instances the body was cleft in the centre, the anterior fragment being depressed downwards and forwards; a small piece was thrust back into the spinal canal. In the third case a fracture detached the odontoid process downwards and forwards. The cases prove that a certain number of individuals recover after an injury usually supposed fatal. Mr. Arthur Benson showed a boy who had been struck under the right eye, on Sunday, March 12, with a blunt rod of steel. There was no external hæmorrhage. The eye was rather prominent; the motions of the globe were restricted. The internal structures were apparently normal, but the sight was entirely gone. The lesion was probably due to pressure far back of effused blood on the optic nerve; but the cause of the absolute blindness was doubtful. Dr. B. A. Windle presented the thyroid gland and uterus of a woman, aged thirty-five, who suffered from rheumatism four years ago. In September, 1881, she first noticed a pulsating swelling in her neck after a violent fit of coughing and dyspnoea. Her eyes now became prominent. There was orthopnoea, and the heart's action was rapid, irregular, and frequently intermitting; there was an apical systolic murmur. She died suddenly in January last. Ophthalmoscopic examination during life had revealed nothing abnormal. The thyroid was much hypertrophied. The glandulæ concatenatæ on the left side were also enlarged. The sympathetics on both sides of the neck were normal. The orbits contained more fat than normal. The heart was dilated; the mitral orifice was enlarged and rough. The ovaries were large and degenerated.

The closing meeting of this Society for the session 1881-82 took place on the afternoon of Saturday, March 25, in the Anatomical Lecture Theatre of the School of Physic, Trinity College. Dr. William Stokes, the President, occupied the chair. Dr. J. W. Moore showed a specimen of calculous pyelitis on the right side, followed by perinephritic abscess, and ultimately by iliac abscess, which burst into the ascending colon, causing a profuse purulent diarrhoea. The left kidney had taken on compensatory work and become immensely hypertrophied. It weighed fourteen ounces. Secondary fatty degeneration had subsequently occurred in it. Dr. E. H. Bennett showed a deposit of crystalline ammonio-magnesian phosphate in a joint affected by chronic rheumatic arthritis, simulating the deposit of true gout. Dr. Bertram

Windle submitted a case in which rupture of the spleen from violence proved fatal through hæmorrhage into the peritoneum. After a short valedictory address by the President, in which he alluded to the proposed fusion of the medical societies of Dublin into an Academy of Medicine, the Society adjourned until next session.

ATTEMPTED ASSASSINATION OF DR. GRAY.

DR. JOHN P. GRAY, the well-known Medical Superintendent of the State Lunatic Asylum at Utica, New York, had just returned home (March 16) from Washington, where he had been examining, with the District Attorney, the medical portion of the Bill of Exceptions of the Guiteau case, in which he was one of the principal experts who testified against the plea of insanity. While discussing several matters with some friends in his office, a man opened the door of the room, stepped just inside, and, without a moment's hesitation, fired a large navy revolver, carrying a No. 38 calibre ball. Dr. Gray immediately went up to the bath-room on the floor above, where he was found bleeding somewhat profusely from the mouth and nose. The ball had entered over the left malar bone, half an inch below the outer angle of the eye, and made its exit an inch and a half below the outer angle of the right eye, and half an inch back of a vertical line drawn from that point. The left side of the face was filled with powder, so closely to it had the pistol been fired. The hæmorrhage soon ceased, and both eyes were closed by the infiltration of blood into the surrounding tissues, the whole face being also swollen and distorted. There was no shock, the temperature remaining normal, and the pulse not rising above 90. The patient exhibited remarkable coolness and fortitude, and was able to give directions. Up to the date of the report in the *Philadelphia Medical News*, March 25, he was going on well. The would-be assassin was a veteran soldier, forty-six years of age. After shooting Dr. Gray, he called on different persons, boasting of what he had done, and exhibiting several loaded firearms. He eventually gave himself up to the police. The man was known as a lunatic, but whether an inmate of the Asylum or not is not stated.

THE BROCA MEMORIAL.

THE fourth list of subscribers has just been published, bringing the sum to the present time up to 22,448 fr. The subscriptions for a statue of Pinel amount to 15,251 fr.

STORAGE AND UTILISATION OF THE PHOSPHATES IN PREGNANCY.

In a recent number of the *Union Médicale*, Dr. Delattre discusses a phenomenon of early pregnancy which he considers has not hitherto received the attention which, both on physiological and therapeutical grounds, it deserves. He refers to the almost complete disappearance of the phosphates from the urine. These salts, he says, are, except the small proportion as yet required by the development of the foetus, either stored up in the maternal bones, which increase in weight and density, or, occasionally, deposited on their surface in the form of osteophytes, which have long been looked on as errors of nutrition. In the later months, when the foetal bones are growing and ossifying rapidly, these reserves are drawn on, and the osteophytes, if present, disappear. The absorption is not complete at the time when the child is born, but goes on during the normal duration of lactation supplying phosphates to the milk. Such is the course of events in the case of a healthy and well-nourished woman: if, on the other hand, she be weakly and ill-fed, she is compelled, instead of laying up and subsequently employing a reserve of phosphates, to draw on her own tissues for the supply, which, after all, is insufficient for the wants of

her child, who is consequently puny, rickety, and late in dentition. These considerations suggested to him the administration of phosphates in the most easily assimilated form to the mother during the whole period of pregnancy; and this treatment was in nine cases out of ten followed by the best results. In one instance, out of four children, the first two were feeble in mind and body, with enlarged glands, soft bones, pale complexion, etc.; but the last two, though born after the mother had been further reduced by anxiety and a nervous malady, were robust, rosy, and boisterous. This he attributes solely to the employment during the last two pregnancies of the treatment mentioned. Again, the first two children of one of his colleagues did not cut their first teeth until more than eleven months of age, but the third, after the mother had been taking phosphate of lime, cut them without any disturbance of health at a few days over four months, and was in every respect stronger and healthier than the older ones. He also believes that he has seen a marked amelioration in the vomiting and other nervous derangements accompanying pregnancy in the cases in which he has adopted this mode of treatment.

THE ACADEMIE DES SCIENCES.

WHEN this Academy was reconstructed, some fifty years ago, physiology had not entered upon the grand career it has since pursued, and of so little note was it considered, that while a section of the Academy for anatomy and zoology, and one for medicine and surgery, were created, physiology remained unrepresented by any section, as it does, in fact, still remain. Instead of supplying what is now a glaring deficiency, the practice of late years has been, on the occasion of vacancies in the section for medicine and surgery, for the physiologists to contest these with physicians and surgeons, and most frequently with success. Indeed, the physiologists *de sang pur* have declared that, as far as surgeons are concerned, the Academy is no place for them, they being mere practical people, having nothing scientific in their composition. The election which took place on April 3, to fill the place of the late Prof. Bouillaud, was attended with the same result. The committee sent up a list in which Dr. Davaine was placed first, Prof. Charcot second, Profs. Paul Bert and Brown-Séguard third (*ex æquo*), and Prof. Sappey fourth. There were fifty-seven Academicians present, and of these thirty voted for Prof. Paul Bert, twenty-six for Dr. Davaine, and one for Prof. Brown-Séguard.

NAVAL MEDICAL SUPPLEMENTAL FUND.

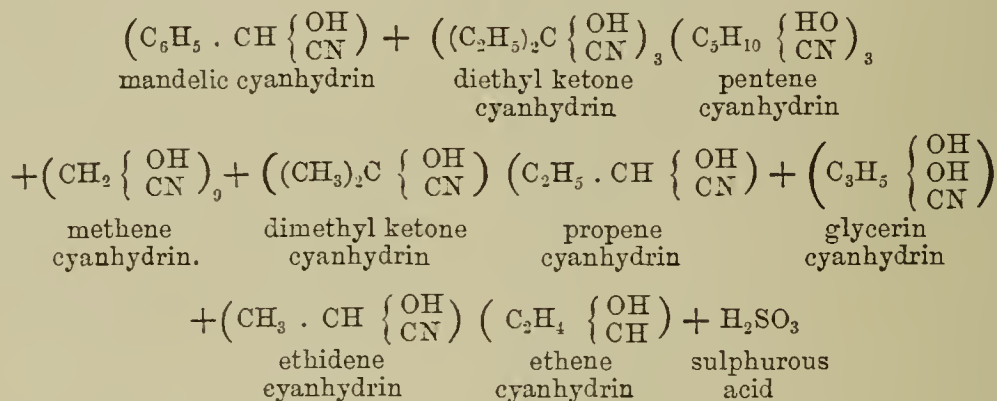
AT the quarterly meeting of the directors of the Naval Medical Supplemental Fund, held on the 11th inst. (T. Russell Pickthorn, Esq., Inspector-General, in the chair), the sum of £55 was distributed among the several applicants.

EXCESSIVE VOMITING IN PREGNANCY.—Prof. Carl Braun, of the Vienna General Hospital, was recently called in consultation in a case of hyperemesis in pregnancy, and found the patient, in the fifth month of her pregnancy, greatly emaciated from totally uncontrollable vomiting. The attendant physician was urgent in advising the immediate induction of labour, but Dr. Braun did not approve of the suggestion. Instead of this, he caused the vaginal cervix to be freely bathed in a 10 per cent. solution of nitrate of silver in water. Five minutes later the part was well dried to prevent further corrosive action. The vomiting ceased at once, and an hour after the patient ate a veal cutlet. Dr. Braun is of opinion that, in general, hyperemesis in pregnancy should not be regarded as an indication for the induction of premature labour, for while he has frequently seen this operation result in death, he has never seen a fatal case of hyperemesis occur in a pregnant woman.—*Philadelphia Med. News*, March 4.

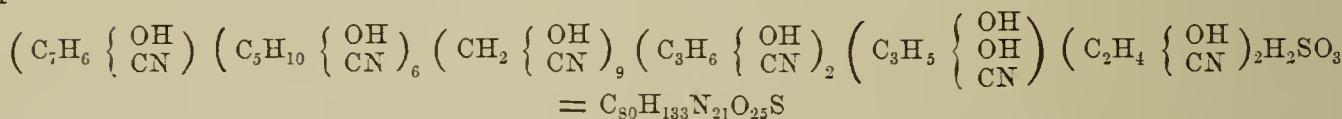
CAMBRIDGE PHILOSOPHICAL SOCIETY.

At a meeting of the Society held on Monday, February 6, Professor Babington, Vice-President, in the chair, the following communications were made to the Society by Dr. Latham:—1. "On the Composition of Albumen." 2. "On the Composition of Leucine, and the Changes it undergoes in the Animal System."

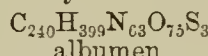
The fact that from the cyanhydrins of the alcohols and ketones several products may be prepared in the laboratory



or



three molecules of which by condensation give—



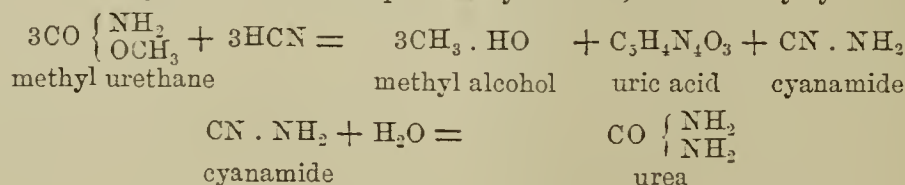
albumen

The method by which in the laboratory the various alcohols, oxidised first into aldehydes, were transformed successively into cyanhydrins, cyanamides, and lastly into the amido-acids leucine, alanine, and glycocine, was referred to, and it was argued that when ethylic or ordinary alcohol was introduced into the living animal body it passes through these changes and is converted from the cyanhydrin either into lactic acid or alanine, according to the wants of the system, that is, according as ammonia is present or not at that stage of the transformation.

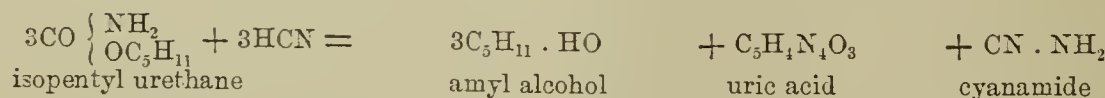
By quotations from "Foster's Physiology," Solnikoff, and Frerichs, it was shown that when leucine and glycocine are introduced into the alimentary canal of a living animal a corresponding amount of urea is produced in the urine—this change taking place in the liver—and that in disease such as acute atrophy of the liver, urea almost entirely disappears from the urine, being replaced by leucine and tyrosine.

If these bodies are converted into urea, what becomes of the residue? Is it converted into alcohol?

The carbamates or urethanes of methyl, ethyl, and isopentyl, are identical in their ultimate composition with glycocine, alanine, and leucine; and the carbamates when heated in a sealed tube with ammonia to 180° C. or thereabouts are converted into urea and methyl, ethyl, or amyl alcohol respectively. It was suggested, therefore, that leucine, alanine, and glycocine in the living body are first transformed into the corresponding carbamates, which then coming in contact with ammonia in the liver, are converted into urea and into the corresponding alcohol, the urea pass-



Similarly

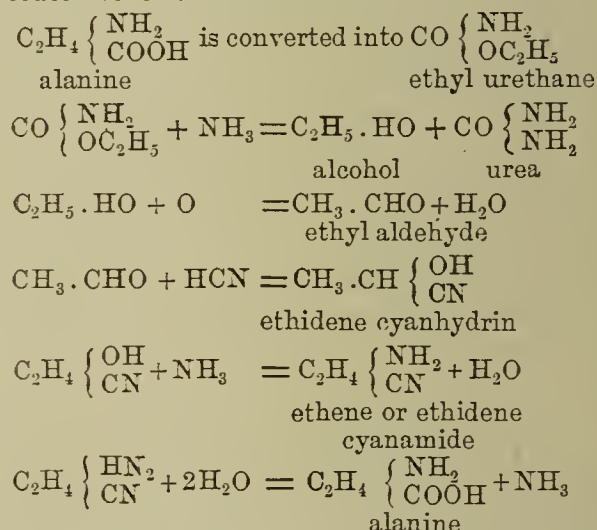


Lastly it was suggested that leucine and glycocine might be transformed into carbamates by means of the glucose formed in the alimentary canal, or in the liver from glycogen, the arguments being illustrated by reference to the phenomena of lactic acid fermentation, and to Nægeli's experi-

ments on the growth of fungi (and therefore the production of albumen), whose nutriment consisted exclusively of glucose and ammonia.

Mr. R. Irwin Lynch exhibited to the Society a plant of *Duboisia myoporoides*, from the Botanic Garden, and also

ing off by the kidneys, the alcohol undergoing the changes in the tissues above referred to:—



If, however, the carbamates or urethanes, instead of meeting with ammonia, are brought in contact with ethidene or ethene cyanamide, the resulting products would be the corresponding alcohol, and a compound of cyanogen which, when acted upon by acids or alkalis, gives the formula for asparagine. With the cyanamide next higher in the series, the formation of the amide of glutamic acid is indicated.

Again, by taking three molecules of either of the carbamates, and combining them with three molecules of hydrocyanic acid, condensation takes place, the corresponding alcohols are again produced together with uric acid and cyanamide, the latter by hydration being converted into urea.

some dried specimens to show the inflorescence. This plant, quite recently introduced by seeds from the Baron von Mueller, is of interest as the source of a new alkaloid, probably of considerable medicinal value. It is called Duboisin, and at Sydney and Brisbane is now used in ophthalmic cases instead of atropine. It is said to be superior, and is much more powerful and rapid, is less irritating, and is useful when the patient does not respond properly to atropine. This *Duboisia myoporoides* forms a small tree about twenty feet high, and is native of Australia, near Sydney, and at Cape York; it is also a native of New Guinea and New Caledonia. It has small, pale lilac or white flowers, and belongs to the *Solanææ*.

FROM ABROAD.

OPERATIONS FOR CANCER OF THE BREAST.

At a meeting of the New York Academy of Medicine (reported in the *New York Med. Record*, January 19), Dr. S. W. Gross read a paper on "The Influence of Operations upon the Prolongation of Life and Permanent Recovery in Carcinoma of the Breast," observing that the conviction is steadily gaining ground that this disease is curable, and that it is primarily a local affection, and not an expression of constitutional disease. His conclusions are substantially as follow:—1. That surgical intervention tends to retard the progress of the disease by preventing local dissemination, implication of associated lymphatic glands, and the development of visceral tumours. 2. That local reproductions do not militate against permanent recovery, provided that they are thoroughly and early excised as soon as they appear; and that lymphatic involvement does not forbid operation, since, in fact, glands were removed in more than a third of the examples of final cure. 3. That the subjects are, almost without exception, saved from local and general reproduction if *three years* have elapsed after the last operation. 4. That the risk from operations is outweighed by benefits which accrue from them, since they not only add twelve months to the life of the patient, but also cure one-half as many patients as they destroy. 5. That all carcinomas of the breast (if there is no evidence of metastatic tumours, and if thorough removal is practicable) should be dealt with as early as possible by amputating the entire mamma, integuments and all, dissecting away all the sub-jacent fascia, opening the axilla with the view to exploration, and removal of all the glands not palpable prior to interference.

In the discussion which followed, Dr. Peters observed that his experience since he had abandoned the non-interference with cancer, formerly recommended, corroborated the conclusions advanced by Dr. Gross. He believed that the entire breast should be always removed, and that the axilla should be opened whenever there is reason to suspect contamination there. Dr. Weir was surprised at the comparatively high mortality reported by Dr. Gross after amputation of the breast, viz., 17 per cent., which is very much higher than occurred with surgeons of New York. He had amputated the breast between sixty and seventy times with only one death, which was due to erysipelas. Since the advent of Listerism the rate of mortality should not be high. As to the absolute curability of the disease, he had not obtained such good results as Dr. Gross, viz., one in nine cases, and he believed that the greatest hope was in the direction of prolongation of life and postponing recurrence. A case as a remarkable instance of this was cited. In 1856 Dr. Wood removed the right breast of a patient, and Dr. Post removed her left breast in 1867. A nodule of the disease recurring in the cicatrix of the right side was removed in 1873. The disease recurred in 1875, was removed in 1877 and 1880, and then recurred with such adhesions as to preclude operation, and the patient died a month ago. From a statistical examination of eighty-six cases of cancer, the pathological conditions of which he had carefully studied, Dr. Satterthwaite found that there were thirty-six sufficiently complete to draw deductions from. He found that carcinoma never appeared before twenty-eight or later than seventy years of age. In 97 per cent. it attacked the

female, and in 3 per cent. the male breast. Usually the right breast was attacked. The most usual cause assigned was some form of traumatism, but heredity was only assigned in about a sixth of the cases. Recurrence took place, on an average, at about the tenth month; but if the patient had no recurrence during three years a cure might be predicted. In 9·68 of the cases there was a definitive cure, the period of immunity having lasted from six to ten years. The danger of the operation in the New York locality was trivial as compared with that indicated by Dr. Gross, the actual mortality (carrying the computation to the eighth day after the operation) having been less than 3 per cent. With respect to the comparative advantage of early and late operations, Dr. Satterthwaite felt disappointed, as, with the impression that early operations, and in recurrence frequent operations, offer the best chance of immunity or retardation, he found statistics giving little encouragement to the advocates of early operation. Prof. Sayre approved of the general principles inculcated in the paper; and stated that, according to the teaching of Atlee in 1846 or 1847, he had uniformly employed arsenic after amputation of the breast, and some of his patients had lived twenty years after the operation without any return. Dr. Hamilton observed that the central point of the discussion was whether cancer is primarily a local or a constitutional disease; for if it is local, the earlier its removal is effected, the better. Opinions seemed to be more and more in favour of its primary localisation, and his own tended that way. Dr. Post had always been in favour of early removal of cancer, and the following up of the disease so long as it recurred in situations admitting of interference. He referred to a remarkable case. A surgeon in Virginia (dead many years since) removed the original disease, and a secondary growth in the following year, and then during the next ten years performed nine operations in succession, the patient remaining under observation for ten years after the last of these operations. Although the operation should be performed as early as possible, it should still be had recourse to after the glands are involved, providing the adhesions were not too extensive to admit of the whole disease being removed. He believed that a partial operation is fraught with mischief, although there may be exceptional cases in which temporary relief may be given by a partial removal of the diseased mass. Dr. Willard Parker was of opinion that in selected cases the removal of the breast and affected tissues should be performed, although out of the 450 cases which had been under his own observation some had done very well when there seemed no chance of benefiting by an operation. His own observation had led him to the conclusion that the disease is not hereditary. Nor does he believe it to be a primary disease, but that it has its starting-point in some abnormality, a benign growth not infrequently after years being converted into a malignant one. Both Dr. Leale and Dr. Fordyce Barker expressed a favourable opinion of the use of arsenic in cancer. In reply, Dr. Gross observed that the mortality from the operation of 17·87 per cent. arose in a great measure from the mode of treatment of the axillary wound. Instead of the veins being tied, the wound was stuffed with material which caused the secretions to be pent up, and fatal disease followed. The operations which were attended by this mortality were not performed by English or American surgeons, but occurred chiefly in Germany, where the mortality was notoriously high. He had himself removed the breast in seventy-two cases, in seventeen by his thorough operation, and in fifty-five by the ordinary mode, and he had only lost two patients, or less than 1·5 per cent. He thought that surgeons should seek for better results than preventing the extension of the disease in 10·87 per cent. of all cases of cancer of the breast; but that is the limit obtained by *all kinds* of operations. He brought forward his thorough procedure under the belief that if it were generally practised better results would be obtainable. Cancer recurs after the operation, as a rule, and generally in the line of the old cicatrix. But why do we leave anything in which the disease can recur? The thorough operation was not especially serious. The disease recurs in the skin or in the subcutaneous connective tissue and fat; and why leave these tissues behind?

"His method of procedure is as follows:—First palpate the entire mammary region; feel for lobules outside of the gland in the axilla, above and below the clavicle; and then,

instead of making an elliptical incision, embracing the nipple and a small portion of the skin, remove the breast by a circular incision, remove the fascia of the pectoralis, then secure bloodvessels, then prolong the incision into the axilla, which is to be explored with the finger thoroughly, and all glands in the least affected removed; ligate with catgut each vein which goes into the axillary veins, and all the arteries; make a clean and complete dissection of the axilla; and then, after all hæmorrhage has been stanchd with hot water, a drainage-tube is inserted, and the lips of the wound approximated as closely as possible by stitches introduced one inch and a half or two inches from the edges, and the remaining space left to heal by granulation. In some cases it will be possible to approximate the edges of the wound accurately. He believed that carcinoma is primarily a local disease, and the sooner such an operation for its radical removal was performed, the better."

THE DUTIES AND REMUNERATION OF WORKHOUSE MEDICAL OFFICERS.

At a meeting of the Council of the Poor-Law Medical Officers' Association, held at their Rooms, 3, Bolt-court, Fleet-street, on April 4, the circular letter of the Local Government Board, dated March 17, 1882, headed "Casual Paupers suffering from Small-pox," was taken into consideration. It was resolved—"That it appears to this Council that the order in question is one calculated to give much trouble to the medical officer, seeing that under its provision not only the master of the workhouse, but the superintendent of the casual ward (nearly always, comparatively, an illiterate person), are entrusted with the power of summoning the medical officer, either from their own observation or on representation of such casual pauper." The Council considered that in rural districts, where the medical officer might live at a distance, such a power would subject him to considerable expense and inconvenience. They also desired to express their sense of the injustice implied in throwing additional obligations on the workhouse medical officer, without provision having been made by the central authority for any additional remuneration. The Council trusted that some effort would be made to put a question to Mr. Dodson, the President of the Local Government Board, on this subject.

At the same meeting the action of Dr. Danford Thomas, Coroner for Central Middlesex, refusing to give the fee accorded under the provisions of the Coroners' Witness Act of the 6th and 7th William IV., cap. 89, was taken into consideration, when it was unanimously resolved that the Council viewed with much regret that the Coroner should have put such a wrongful interpretation on Section 5 as to induce him to refuse the fees in question.

At the same meeting the important question of the publication of reports from, and charges made against, medical officers at meetings of boards of guardians was taken into consideration. The opinion was expressed that the operation of the present system was calculated to do considerable injury to the character and professional prospects of such officers, seeing that statements of a most injurious and calumnious character were frequently made, and no opportunity was afforded to such medical officers of meeting such charge at once. The Council also felt that the publicity frequently given in the local press to communications addressed to the boards of guardians, which are in their nature privileged, was calculated to deter such officers from communicating to their respective boards information that might be valuable in the public interests, but which might entail upon the officer present obloquy and subsequent loss.

PROLAPSUS ANI.—The Vienna correspondent of the *Phil. Med. News*, March 18, states that Prof. Billroth has recently effected a radical cure of prolapsus ani in six cases by the following method:—Three-cornered folds of the rectal mucous membrane were cauterised with a Paquelin, the bases of these triangles looking towards the anus. The lower end of the rectum shrunk upwards within four days, granulations sprang up, and in from two to four weeks the prolapsus was perfectly cured.

REVIEWS.

Opium-smoking in America and China. A Study of its Prevalence and Effects, Immediate and Remote, on the Individual and the Nation. By H. H. KANE, M.D. New York: Putnam. 1882.

ALTHOUGH it is of immemorial antiquity in the East, the practice of using opium as an intoxicant by Europeans may fitly be designated "the modern vice." During the first and second decades of the present century, when Coleridge and De Quincey became notorious as opium-eaters, this was not a national vice in England. Its spread among us was, if not, as has been alleged, consequent upon, assuredly contemporaneous with, the extension of the temperance system. The accounts of the Board of Trade show that the total quantity of opium consumed in the United Kingdom in the first half of the year 1846 was 9300 lbs.; in the first half of 1847 it was 27,208 lbs.; while in the corresponding period of 1848 it was 36,985 lbs. According to the author of the important and very interesting little book now under notice, the practice of opium-smoking did not exist among white men in America until 1868, when a sporting character in California, named Clendenyn, is believed to have introduced it. He taught another, who smoked in 1871. The practice, we are told, spread rapidly and quietly among gamblers and prostitutes, until the latter part of 1875, when the authorities became cognisant of the fact; and finding, upon investigation, that many women and young girls, as well as young men of respectable family, were being induced to visit the dens, where they were ruined morally and otherwise, a city ordinance was passed, forbidding the practice under severe penalties. Many arrests were made, and the punishment was prompt and thorough. Dr. Harris, of Virginia City, Nevada, says that opium-smoking was entirely confined to the Chinese until the autumn of 1876, when the practice was introduced [there] by a sporting character who had lived in China, where he had contracted the habit. He spread the vice among his class, and his mistress introduced it among her prostitute acquaintances. Dr. Kane tells us that smokers coming East constantly made converts, so that, in a few months, towns like Trucker, Carson, Reno, and many others, each had their smoking dens and their regular customers. Each new convert seemed to take a morbid delight in converting others, and thus the standing army was daily swelled by recruits. In the latter part of 1876, Chicago, St. Louis, and New Orleans became contaminated, and the practice spread with great rapidity both in these and in other cities. A few months later opium-smoking was commenced in New York City. "To-day," writes Dr. Kane, "there are many places for smoking, and at least three hundred smokers here." He adds that, at present, "almost every town of any note in the United States, and more especially those in the West, have their smoking dens and *habitués*." Dr. Kane goes on to show that "the increase in the amount of opium-smoking in the last few years has been steady, with an advance of 17,000 lbs. in 1880 over that imported in 1879; the total of 77,196 lbs., with a money value of about two-thirds of a million dollars"—this drug being used wholly in pandering to a morbid appetite, for not a single grain is used as medicine. Our author gives statistical evidence of the fact that the above increase in the importation of opium is not due to increase in the Chinese population of America, seeing that the number of Chinese in that country (of whom about 20 per cent. smoke opium occasionally, and 15 per cent. smoke it daily) has remained nearly stationary since 1876. Dr. Kane has roughly estimated that about 6000 Americans are now opium-smokers, but he adds that the majority of smokers with whom he has talked consider that this falls far short of the actual number. He is told that there is scarcely a town of any size in the East, and none in the West, where there is not a place to smoke, with Americans smoking.

Here we must leave Dr. Kane's report for a moment to take a general glance at opium-intoxication as a national evil. The Rajpoot is an opium-eater, or rather drinker, as De Quincey was. "Opium," wrote Colonel Todd, the historian of Rajasthan, "is more necessary to the Rajpoot than food." In British India, opium-smoking is not a national custom—hemp-smoking takes its place,—but opium-eating is of dire prevalence in the opium districts, and is miserably common elsewhere. Dr. Chevers states, in his "Medical

Jurisprudence for India," that in a police inquiry upon a question of the payment of licence-tax, which took place in Calcutta in May, 1870, it appeared that one Ramnarain Daw, an opium-dealer, had no less than *fifteen* shops in various parts of the town. Immediately afterwards, another dealer brought forward the keepers of *seventeen* other shops, falsely representing that they were his servants. In 1874 it was reported that there were *thirty-two* licensed opium-shops in British Burmah, yielding to the Government nearly three hundred thousand rupees for licences. In May, 1881, the number of shops was reduced, by order of the Chief Commissioner, from *sixty-eight* to *twenty-seven*. As long ago as 1865-66 the licence-fees on the best opium in the Lower Provinces of Bengal amounted, for that year, to Rs. 19,24,832, out of a total Excise revenue of Rs. 49,39,439. Since the Portuguese opened the opium trade with China in 1767 (their example being followed by the East India Company in 1773), opium-smoking has entailed upon the inhabitants of the Celestial Empire an infinity of evils. Now China is repaying the debt, with accumulated interest, both in America and in the United Kingdom. Dr. Kane has assuredly done his duty as a good American citizen in thus promptly baring to the light this evil, as it is rapidly spreading among his fellow-countrymen. Here, among ourselves, opium-eating prevails extensively, and opium-smoking is apparently gaining ground. The United Kingdom therefore owes a debt of gratitude to Dr. Kane for practically suggesting to us the necessity for a searching inquiry into the prevalence of opium eating and smoking in these islands.

We have here distinguished the practices of *eating* and *smoking* opium by italics, because these two words indicate a fact of most vital importance, which must never be lost sight of in the enforcement of repressive legislation. *We can cut off the opium-smoker's supply at any moment. This cannot be done with the opium-eater.* Consequently, the former evil is much less deeply rooted, and far more readily preventable than the latter is.

Every physician who has large experience of Bengali gunjah (*Cannabis sativa*) smokers (who are generally recognisable by the presence of a brown stain on the palm of the right thumb, corresponding with another on the palm of the left hand), knows that immediately one of these unfortunates is brought to hospital or gaol, he can be deprived of the intoxicant without the slightest peril to his health. As regards opium-smoking, Dr. Kane shows that, although the "fiend," as he designates the hardened smoker, who attempts to break himself of his habit suffers from many disagreeable and dangerous symptoms, among which the worst are almost constant vomiting and violent diarrhoea, and "rarely carries the struggle to a successful issue," "the cure of the opium-smoker seems, to the experienced, a very easy matter." These cases, however, "can only be reliably and satisfactorily treated in an institution where they can be watched and restrained, day and night, for at least two weeks." The existence of an extremely rigid system of searching Chinese emigrants for opium on their arrival at the San Francisco Custom-house, goes far to prove that the Chinese opium-smoker is far more easily converted into a total abstainer than is the East India opium-eater. Large experience among the opium-eaters of Bengal shows that, whatever amount of repression may be physiologically possible in his case, his cure is practically impracticable, unless we entertain the Utopian notion of providing reformatory institutions and attendant physicians for millions of debauchees, all of whom would relapse upon discharge. Extensive experience of drunkenness among large bodies of men leaves upon our mind the same opinion of the vice of spirit-drinking to great excess. We know *simply nothing* to prove that the systematic, hardened drunkard ever ultimately recovers. If the Indian opium-eater be suddenly deprived of his supply he almost certainly dies—generally by bowel complaint. It was, however, found by Dr. Chevers that, however extravagant an individual may have been in the consumption of the drug, he may be at once brought down to an allowance of six *ratīs* (nine grains) in the twenty-four hours without the slightest danger to his health. The whole history of this subject centres upon the conclusion that this national curse can never be put down until the sale of opium for any but medicinal purposes is effectually prohibited. With the philanthropic intention of being able to form an accurate view of the practice, Dr. Kane "tried the experiment a number of times," both at a "joint" (opium den) and at home, where he had every

facility, having purchased a full "lay out," and had a Chinese bunk erected in his office. Consequently our author may be regarded as an authority upon the physiological action of opium-smoking on the system—a subject to which he devotes many interesting pages, which those who may desire to investigate the question will do well to compare with the important statements recently published(a) in our columns by Surgeon-General Francis, late of the Bengal Presidency. We close the author's little book with the confident assurance that every word contained in each of its cogent and straightforward sentences deserves the practical attention of legislators and philanthropists.

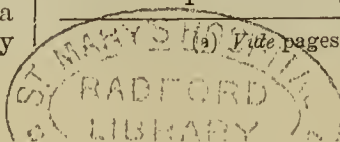
Eczema and its Management. A Practical Treatise, based on the Study of 2500 Cases of the Disease. By L. DUNCAN BULKLEY, A.M., M.D., Attending Physician for Skin and Venereal Diseases at the New York Hospital, etc. London: J. and A. Churchill. 1881. Pp. 344.

THIS work aims at "presenting the general practitioner with as clear a guide as possible to the recognition and management of eczema." When it is recollected that eczema constitutes one-third of all cases of diseases of the skin, and the amount of misery it often inflicts is taken into consideration, everyone will allow that it is a subject of sufficient importance to deserve the special attention of every practitioner, while the difficulties frequently met with in its management render a reliable practical guide a welcome friend. This is the character of the work before us. It is a clinical one, and is the outcome of a large personal experience, together with the careful study of the literature of the subject, and is perhaps all the more useful for not being strikingly original.

The author first defines eczema as an inflammatory disease of the skin *sui generis* of constitutional origin, with many diathetic relations; and he does not, therefore, accept the view of a dartsous diathesis, while granting the existence of a predisposition to eczema in some people. He excludes those local forms of dermatitis, the direct result of irritants, parasitic or otherwise; at the same time acknowledging that irritants are frequently the starting-point of an eczema in a predisposed subject; and he endeavours to prove his views—first, by comparing eczema, both clinically and microscopically, with other recognised constitutional and local cutaneous disorders: secondly, by discussing its clinical history with regard to age, sex, position of the lesion, relapses, heredity, and constitutional disease, such as gout, struma, etc.: thirdly, by contrasting it with local diseases of the skin, among which he includes epithelioma and keloid, the purely local origin of which is open to dispute—thus, some people have keloid following a very small injury to the skin, such as that produced by acne pustules, and that in almost every scar; here there must certainly be some predisposition, just as much as where a slight irritant excites an eczema in a predisposed person: and, fourthly, by comparing the effect of local treatment alone with constitutional treatment alone, giving a clear verdict in favour of the superior efficacy of the constitutional method. It must not, however, be supposed that he at all deprecates local treatment, only insisting upon the necessity of carefully investigating the constitutional predisposition which he considers underlies all cases of eczema. It will thus be seen that the author is in accord with what we may call the English view of the subject; and his testimony is of greater weight, coming from one who was brought up in the Vienna school, and whose conversion is the result of clinical observation.

Dr. Bulkley thinks that nearly all eczema is associated with either gout, struma, or neurasthenia. This is only another nomenclature for what Sir Erasmus Wilson calls assimilative, nutritive, and nervous debility; and we are inclined to think that the latter is the better one, as Dr. Bulkley has to widen very much the usual significance of his terms to make them correspond to those of Wilson. The defective assimilation which leads to gout so frequently, has no more right to be called "the gouty state" in its early phases than has chronic lead-poisoning, which leads to the same effect. We think Wilson's term preferable as containing both the beginning and the end of the chain.

The author discusses fully the general aspects of eczema; and how protean they are may be inferred from the fact



that he gives the diagnostic features of eczema from twenty-eight diseases, for which he has known it mistaken, calling attention very properly to the common error that discharge in some part of its course is an absolutely essential feature of every case of eczema—a sign so general as to be a good landmark for a student, but not a staff to be leaned on too heavily, especially in the papular forms. We are inclined to demur to his statement, that since sycosis is a deep folliculitis it loosens the hair, which can be extracted *without pain*, while in eczema of the beard the inflammation is superficial, and therefore extraction is painful. We have found extraction in sycosis very painful unless the supuration is very free—an opinion shared by Dr. Bulkley's countryman, Dr. Duhring; and on the other hand, we have often found the hairs in eczema infiltrated with inflammatory products to the end of the root. No doubt, however, in this stage diagnosis is practically unimportant.

The general remarks upon the treatment of eczema, both local and constitutional, appear to us sound and judicious; and, as may be inferred from the views of the author as to the nature of the disease, those measures that are calculated to raise the standard of the general health of the patient are strongly insisted upon, while no less forcibly are soothing applications advocated locally for the acute stages. The latter half of the work is occupied by the description and treatment in detail of special forms of the disease. We notice that in infantile eczema he is a strong believer in arsenic, at the same time insisting very properly on minute inquiries into all the details of the child's life and surroundings. In separating eczema of the scalp from dermatitis due to pediculi, he does not allude to the almost invariably inculcable character of the pus in pediculosis capitis, and the consequent frequency of scattered pustules in other parts of the body.

These chapters will, however, be found very useful to the practitioner from their containing numerous valuable hints for the management of the many troublesome manifestations of the disease, and will serve him a good turn in many a strait.

Although we have differed from the author in a few minor points, on the whole this is what it professes to be, a thoroughly reliable and "practical treatise" upon the subject of eczema.

On Diseases and Injuries of the Eye. A Course of Systematic and Clinical Lectures to Students and Medical Practitioners. By J. R. WOLFE, M.D., F.R.C.S.E., Senior Surgeon to the Glasgow Ophthalmic Institution, Lecturer in Ophthalmic Medicine and Surgery in Anderson's College. With ten coloured plates and 157 wood engravings. London: J. and A. Churchill. Pp. 452.

It is not our usual custom to give any extended notice of lectures or papers which have appeared in our own columns, partly because our readers have had ample opportunities of judging for themselves—which is, after all, the best kind of criticism; partly because our opinion has already been, to a certain extent, indicated by the mere fact of publication. That this is sometimes unfair to authors we are ready to admit, especially when, as in the present instance, only a portion of the lectures has been published by us. We have therefore thought it well to give, at all events, some mark of approval on the present occasion to Dr. Wolfe's lectures. Of books on ophthalmic subjects, it may well be said that there is no end. No organ of the body has been so largely written and commented on, and yet we are as far off as ever from the solution of some of the simplest problems connected with vision—say the perception of colour, or, from a pathological point of view, the destruction of one eye following as a consequence of disease of the other. Many and various have been the treatises on diseases of the eye which have passed through our hands; but, nevertheless, it seems to us that the present volume meets a distinct want. All men cannot be accomplished oculists, but all men in our profession have from time to time to encounter and manage various kinds of eye-disease and eye-injury; and, as it seems to us, this book most admirably meets the wants of this the largest class in our profession, whilst at the same time it seems to focus up all the latest information on the subject of ophthalmology. In certain respects the book is a clear gain to ophthalmic surgery—notably, we should say, in the chromo-lithographs, which have been prepared expressly

for this work by Dr. Hugo Magnus, of Breslau. These are certainly the best we have seen. Turning, however, to the real contents of the work, we may note that it consists of twenty-eight lectures, beginning with some on the anatomy and physiology of the eye, and the methods of examining it, and next treating of diseases and injuries of the conjunctiva, the sclerotic, and cornea. After this the iris and lens are dealt with, this portion including three lectures on cataract, together with others on refraction and astigmatism. Two are likewise devoted to the ophthalmoscope, after which come cyclitis, glaucoma, and diseases and injuries affecting the retina and optic nerve. Colour and colour-blindness occupy one lecture, the disordered movements of the eyeball another; strabismus has one to itself. Injuries of the eyeball and diseases of the orbit follow, with, finally, three on diseases of the appendages of the eye, especially of the eyelids; and when all this is crammed into the small space of 446 pages, it is clear that but little superfluity of matter has been introduced. By this we do not mean to say that anything of importance has been overlooked or passed by; on the contrary, we hold it to be one of the chief merits of the book that it contains so much in such small compass. The illustrations, too, which are very numerous, are remarkably good, and sure to prove useful. In short, we can confidently recommend the volume as one of the most useful that can be put into the hands of the student or practitioner. Clear, concise, and reliable, it is sure to make its way as a standard text-book.

A Handbook of House Sanitation. By EARDLEY BAILEY DENTON, B.A., C.E. London and New York: E. and F. N. Spon. 1882. Pp. 218, with 140 Figs.

This little book is a reprint, with additions by his son, of so much of the "Sanitary Engineering" of Mr. Bailey Denton as treats of the prevention of damp, the drainage, closets, ventilation, and water-supply in private houses, whether in town or country. There is, however, no reference to the theory and practice of warming—an omission which it would be well should be supplied in another edition.

Narrower in its scope than the works of Mr. Bailey Denton, sen., Baldwin Latham, and Captain Galton, the book under notice is more technical than the last, or than the numerous smaller books that have recently appeared; and the practical man will find in it a safe guide in the selection of the best patterns of every sanitary appliance. The names of the author and editor are a guarantee for the soundness of the views expressed, and free use is made of the writings of the most recent authorities on every subject. The work is divided into twelve chapters, and these again into ninety-one sections, the subjects of which are stated at the head of each chapter, as well as of the sections themselves, while a good index completes the facilities for reference.

The first chapter treats of air and its impurities, and is chiefly borrowed from Dr. Angus Smith; the second deals with the choice and improvement of sites. In these there is, of course, little or nothing new; but in the next (on the essential considerations to be observed in the construction of dwellings) we notice, with approval, the author's condemnation of the use of "headers" for tying hollow walls, as tending to defeat the aim of such an arrangement by destroying the insulation; and his recommendation of a ventilating shaft by the side of the kitchen chimney or in each of the principal stacks. Very ingenious, and apparently successful, is the plan for connecting the cold and hot-water cisterns by an open inverted syphon, which supersedes the necessity for ball-valves and renders explosion impossible.

Chapter IV. deals with external sewerage and the disposal of sewage in country and town houses. He condemns cesspools, unhesitatingly recommending irrigation of neighbouring land by downward filtration, and giving his reasons for objecting to sub-irrigation, with all deference to the authority of Mr. Rogers Field. The illustrations of traps, closets, waste-preventers, etc., in this and the next chapter (chap. V., on internal sewerage) are numerous enough for all purposes, but include only those which are really good; the advantages and the drawbacks of each being fairly explained.

In Chapter VI. ventilation is treated but slightly, partly because special systems are applicable only to public build-

ings, and therefore lie outside the scope of this work, and partly because the subject of warming, which (as in Galton's stoves) is now so closely bound up with it, is unhappily excluded.

Chapter VII., on the sources of water-supply, is little more than an abstract of the report of the Rivers Pollution Commissioners, and we cannot but think that Mr. Denton has acted unwisely in accepting, without qualification, the sweeping condemnation by the Commissioners (or, more correctly, by Dr. Frankland) of all rivers as sources of water for domestic use. In the face of recent efforts towards the exclusion or purification of town sewage, we doubt whether Dr. Frankland would still adhere to his statement, that "there is little hope of the disgusting state of the river [Thames] being so far remedied as to prevent the admixture of animal and other offensive matter with the filtered water as delivered." This chapter is devoted chiefly to the chemical and physical characters of water from various sources in relation to potability; the same subject is continued through the next. Well-sinking, pumps, steam and other motive powers for raising water which may be required in country houses, apparatus for the application of Clarke's softening process on a small scale, etc., are then in turn fully discussed and freely illustrated; and the last two chapters are devoted to the storage, filtration, and distribution of water in houses.

In conclusion, we may safely assert that, notwithstanding the number of such books extant, the present one supplies a real want, and should be in the hands of everyone, whether practical builder or architect, or a private individual contemplating the erection or sanitary improvement of his house. We repeat, however, our regret that the author has not treated of house warming and lighting in the same way as he has the rest of this subject.

New Commercial Plants and Drugs. No. 5. By THOMAS CHRISTY, F.L.S. London: Christy and Co. 1882.

MESSRS. CHRISTY, importers of all kinds of vegetable products used in the arts and in medicine, have during the past few years published a series of pamphlets containing descriptions and reports of new plants or of others of particular interest. A large portion of the present number is devoted to an account of the various sources of tannin, with instructions for the detection, estimation, and extraction of the tannin in the crude form adapted for the use of the tanner. Some idea of the importance of this industry may be gathered from the fact that the value of the various tanning materials imported into this country is not less than four millions and a quarter sterling, or more than 1 per cent. of our total imports. Extracts, as they are called—i.e., concentrated solutions of tannin—cost less for carriage than barks, and are found to greatly shorten the process of tanning hides, which formerly took from one to three years, but is now completed in a few months. It is remarkable to what diverse families the tannin-yielding plants belong. The varieties of oak have long been unequal to the demand, but the acacias and cæsalpinias, pterocarpi, and other leguminous trees, are as valuable, and many species of rhus, tamarix, and even rumex solanum, statice, and mesembryanthemum are made use of as subsidiary sources. Mr. Christy hopes that new mines of wealth may thus be opened for our colonies.

The list of new drugs, several of which have already obtained repute in America, is suggestive of careful study. Some of them may be found worthy of permanent places in our Pharmacopœia. We may mention particularly the coca, recommended as a cure for the habit of opium-eating; caroba, a valuable tonic, if not almost a specific in tertiary syphilis, to follow on the use of iodide of potassium; papaw, which, on the high authority of M. Wurtz, contains a digestive ferment surpassing pepsin in activity, though acting in a very similar manner. Its solvent power has been found most effective in the destruction of tapeworms, and locally employed for the solution and separation of diphtheritic exudations by German physicians; and euphorbia pilulifera is esteemed in Australia for the relief of asthma and dyspnoea generally.

Sassy bark (*Erythrophlœum quinunse*), found by Dr. Brunton to contain an alkaloid therapeutically and physiologically identical with digitaline; quebracho (*Aspidosperma q.*), highly recommended by Dr. Berkart for dyspnoea, and having yielded in the hands of Dr. O. Hesse not fewer than six alkaloids; Goa powder (*Andoia araroba*), the richest source

of chrysophanic acid; and *Alstonia constricta*, the Queensland fever bark, whose alkaloid Dr. O. Hesse considers to combine the properties of quinia and strychnia,—are apparently the most promising.

Mr. Christy has also received consignments of curare, duboisia, chaulmoogra, Calabar bean, and other already recognised therapeutic agents.

GENERAL CORRESPONDENCE.

IS LAMSON A HOMŒOPATH?

LETTER FROM DR. J. H. CLARKE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In a recent number of your journal you stated, in a leader on the case of Mr. Lamson, that that unfortunate individual had settled in Bournemouth as a homœopathic practitioner. I find, on inquiry, that the statement is totally unfounded. I hoped before this to have seen in your pages a contradiction emanating from Bournemouth itself; but, failing that, I must ask you to publish this contradiction of a perfectly gratuitous misstatement—conceived, as it would seem, in the charitable spirit of the denizens of the Black Country, whose first impulse on the sight of strangers is to fling something at their heads.

I am, &c., JOHN H. CLARKE, M.D.

15, St. George's-terrace, Gloucester-road, S.W., April 10.

[Not having been favoured with a personal and particular acquaintance with Mr. Lamson, we were obliged to take our information from the best sources that offered. We read that Lamson practised as a homœopath, but surely they must have tender consciences who can take home such a notice as an accusation to themselves. Are homœopaths so delicate and susceptible of feeling as to shrink from the inclusion of a registered practitioner, whatever be his crimes, among their number?—ED. *Med. Times and Gaz.*]

THE MORTALITY OF LYING-IN HOSPITALS.

LETTER FROM MR. J. E. BURTON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having done me the honour of criticising a pamphlet published by me on the question of the Liverpool Lying-in Hospital, and having therein denied some of the conclusions at which I have arrived, I trust you will allow me the privilege of a reply.

The question of converting the Hospital into one for the treatment of diseases of women is still under discussion, and will, it is to be hoped, be decided by those who are best able to judge of the requirements of the town.

You say that you "cannot accept the view that a high death-rate is a necessary result in a lying-in hospital"; and in another place, that if the death-rate is high, it will most probably be the result of carelessness, transgression of rules, or imperfect performance of duty on the part of officials or servants, or patients themselves; and you instance the General Lying-in Hospital as an institution in which the highest attainable results are obtained.

I have never said that a high death-rate must necessarily exist in lying-in hospitals, but until you do show an indoor maternity charity that, during a period of at least five years, has had as low a mortality as 1 in 100, you must forgive me for believing that the feat of reducing the mortality is well-nigh impossible. It is a fact that no hospital, in which cases are aggregated, in the United Kingdom can show as low a death-rate as 1 in 80 (except some work-house lying-in wards, in which the cases are so dissimilar that there can be no comparison between them); and to throw the blame on officials, etc., when many believe it is part and parcel of the system, is hardly worthy of a fair-judging, candid mind. The writer's mention of the General Lying-in Hospital, and it alone of British hospitals, naturally leads to the suspicion that he is ignorant of all others. I am in a position to speak of the excellent results obtained in Queen Charlotte's Hospital, in the Birkenhead and

Belfast Hospitals, and would willingly give them their meed of praise, and not shower it all upon one that is *at last* rejoicing in a period (certain or uncertain?) of success.

The writer omits to mention that this Hospital had three deaths in 1880 out of an unknown number of cases, and does not say whether the Hospital was closed during the greater part of the year 1879 or not. We are not expected, surely, to believe that because there have been 172 cases in one year without a death, there will never be any more deaths in the place! I believe the Hospital with which I have the honour to be connected has had four such years, if not more, and I venture to predict that the "General" will sooner or later share the fate of its fellows, as it has already done in the past.

The *naïve* part of the article consists in the admission, after all that has been said, that, as far as the patients themselves are concerned, there is no particular reason for granting them assistance in hospital—that they will do just as well outside. The clinching reason why you think lying-in hospitals should be retained—viz., that they offer an excellent field for investigation and study—I leave to the consideration of the committees and supporters of these institutions. The remaining part of the article I leave to other hands or another time.

I am, &c., J. E. BURTON,
Surgeon, Liverpool Ladies' Charity and
Lying-in Hospital.

64, Rodney-street, Liverpool, April 5.

[Might we refer Mr. Burton to the results obtained in the Hospital Cochin at Paris, where during the years 1873-77 the mortality was 1 in 108; also to Dr. Collins's Mastership of the Rotunda Hospital, Dublin, during which the death-rate averaged 1 in 100; and to Professor Tarnier's speech on antiseptic midwifery at the International Medical Congress, in which he stated that in his new pavilions the mortality was 0.75 per cent.? We made no pretension, in our article, to give a complete list of all the well-managed lying-in hospitals; and we are very pleased that our remarks have given Mr. Burton the opportunity of calling attention to the results of others besides those we named.—*Ed. Med. Times and Gaz.*]

ANECDOTE OF HYRTL.—This celebrated anatomist was one day busily engaged in dissecting in the anatomical room at the Vienna General Hospital, when a guard of military police came into a neighbouring court, upon which the windows of Hyrtl's rooms looked. When they began to go through their evolutions, Hyrtl in a rage threw open the window, and cried out, "Withdraw, you slaves! Disturb not with your fanfaronade the quiet of the dead!"

"DRAWN" OR UNDRAWN POULTRY.—The *New York Medical Record* of March 18 observes that the question of whether poultry and game should be "drawn" or undrawn when prepared for market has been receiving public attention in New York, and is likely to have some legislative action taken respecting it. The immense quantity of poultry consumed in the great cities renders this a subject of considerable sanitary interest. It is the prevalent custom now to sell poultry "undrawn," and it is the belief of some that it keeps longer in this condition. The opening of the body and exposure of the interior to the air naturally offers an opportunity for putrefactive changes, but at the same time the presence of undigested food and of excrementitious substances would seem to favour decomposition. It is well known that the viscera are the first parts to become putrid, and the continual osmosis cannot but carry some of the putrid juices to neighbouring tissues. There seem to be no definite facts as to which will keep longer under various conditions, the drawn or undrawn fowl. The ordinary laws regarding putrefactive changes, however, certainly lead to the opinion that the removal of the viscera with their contents would be much the more certain way of insuring the freshness of the tissues. There could be no question at all as to the advisability of this procedure if the abdominal cavity were carefully dried and the incision sewn up. The Hotel Keepers' Association, in discussing the subject, also came to a conclusion that poultry should be drawn, and a Bill to enforce this procedure is to be presented to the Legislature.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 24.

JOSEPH LISTER, D.C.L., F.R.S., F.R.C.S., President,
in the Chair.

SPLENOTOMY.

MR. WARRINGTON HAWARD read notes of this case. The patient, a woman, aged forty-nine, had usually enjoyed good health. Had never suffered from ague or any intermittent fever. The catamenia had ceased three years. She had been seven years married, but had no children. For eighteen months she had suffered pain in the left side of abdomen, and for ten months had been aware of an abdominal tumour, which had been steadily increasing in size, and which distressed her by its weight. When admitted into St. George's Hospital she was a rather stout woman, of good complexion. She did not look at all anæmic, and although the number of the white globules of the blood was increased, she showed no other sign of leucocythæmia, excepting a greatly enlarged spleen. The spleen occupied the greater part of the left side of the abdomen, and extended from the loin to three inches beyond the middle line, and from the ribs to the groin. The tumour was firm, well defined, and moderately movable. It produced great discomfort from its weight, and a dragging sensation whenever she moved about. There was no other glandular enlargement, and the rest of the viscera were healthy. She had no palpitation or dyspnoea, nor had she suffered any hæmorrhage. Her temperature, pulse, and respiration were natural. The urine was natural. It having been decided to remove the spleen, Mr. Haward performed abdominal section for the purpose. An incision was made in the middle line of the abdominal wall, extending from two inches below the ensiform cartilage to within two inches of the pubes. The enlarged spleen at once presented, and was found free from adhesions. In endeavouring to tilt up the lower end of the tumour, a rent occurred at its upper margin, from which free hæmorrhage took place for a moment, but the bleeding was speedily arrested by the pressure of a sponge upon the torn part. The vessels at the pelvis, which were enormously enlarged, were then clamped and ligatured, after which those of the gastro-splenic omentum were secured by passing an aneurism-needle threaded with silk through the membrane, and tying it in several separate portions. The connexions of the spleen were then severed, and the organ delivered without further difficulty. Carbolised silk was used for the ligatures, and the only hæmorrhage of any consequence was that which occurred from the rent in the spleen. While the wound was being closed the patient suddenly became profoundly collapsed, but was revived by artificial respiration and the subcutaneous injection of ether. Five hours after the operation vomiting commenced, and persisting with great frequency, rapidly exhausted the patient, who died in the evening of the day of operation. The spleen, both to the naked eye and microscope, presented the appearance of simple hypertrophy. Post-mortem, no disease of any organ other than the spleen could be discovered. There had been no hæmorrhage after the closing of the wound, but the abdomen contained some thin blood-tinged fluid. With the exception of slight ecchymosis in the immediate neighbourhood of the wound, the peritoneum and abdominal viscera showed no sign of injury. The indications for and against the operation were considered, and it was shown that, although there was an increase in the white corpuscles of the blood, the patient exhibited none of the other signs of leucocythæmia excepting the large spleen; that there was no sign of anæmia nor tendency to hæmorrhage; and that the condition of the blood would not have been suspected excepting on microscopical examination. The woman's suffering seemed entirely due to the dragging weight of the tumour, and there was no sign of any other visceral disease. The fatal result was certainly not caused by hæmorrhage, which is the chief danger in cases of leucocythæmia, but seemed to be due rather to the disturbance of the great sympathetic plexuses, and the consequent shock and vomiting. The paper concluded with some remarks upon the method of the operation.

Dr. STEPHEN MACKENZIE was glad of the opportunity of raising the question whether removal of the spleen in leucocythæmia was justifiable. Recently a patient had been sent to him with a greatly enlarged spleen, and the blood was found to contain a great excess of colourless corpuscles. He informed the friends of the patient that, though ordinary methods of treatment might afford palliation and delay the progress of the disease, an unfavourable issue was inevitable. At the same time, he mentioned that, in a few cases, the enlarged spleen had been removed, and the patient recovered; further, that the operation was a very serious one, often fatal, and that very rapidly. After due deliberation, both the patient and his family desired that the operation should be performed. He (Dr. Mackenzie) asked his colleague Mr. Reeves if, in these circumstances, he was willing to operate; and Mr. Reeves expressed his readiness to do so. The patient was admitted into the London Hospital for the purpose. He was then found to have a little œdema of the feet, and it was decided to defer the operation until attempts had been made to improve his condition. At this time the proportion of colourless to coloured corpuscles was about one to seven, the coloured corpuscles being about 65 per cent. He was kept in bed, and dialysed iron was given. Under this treatment, the blood-state improved, so that the proportion of colourless to coloured corpuscles fell to one to eighteen or nineteen, and the coloured corpuscles rose to over 70 per cent. Meanwhile Mr. Collier's tables, giving the results of the whole of the recorded cases in which the spleen had been removed, appeared—showing that, though the spleen had been excised successfully in several cases, in no case had the operation succeeded when it had been performed for leucocythæmia. On conferring with Mr. Reeves, it was felt right to inform the patient that, since the operation had been mentioned, the subject had been carefully investigated, and it was found that no case of exactly the same nature as his had recovered; and that, in these circumstances, it was felt right to advise him not to undergo it. The patient and his father, however, made up their minds that, in spite of this information, they wished the operation performed, seeing that, if it were not done, death would only be delayed. He (Dr. Mackenzie) noticed on this occasion, however, that the œdema of the feet, which had disappeared, had returned, and that there was slight puffiness of one hand; and that, though the blood-state had improved, the patient's general condition was not so satisfactory, and leukæmic retinitis and retinal hæmorrhages had made their appearance. In these circumstances, he strongly advised Mr. Reeves not to accede to the patient's request, believing that the operation would be rapidly fatal. As regarded theoretical considerations, it must be admitted that to a certain degree the operation was an experimental one, and the very unfavourable results hitherto obtained did not offer any encouragement. But if, as was asserted, the disease took its origin from malarial affection, there were grounds for believing the spleen was primarily at fault, and removal of the organ might be expected to benefit the patient, provided it could be safely performed. It therefore seemed to him desirable to raise the point whether the operation was justifiable when the blood-disease was not too advanced, in young subjects.

Mr. CLEMENT LUCAS said the terrible mortality which followed excision of the spleen in leucocythæmia—a mortality which left no case of recovery—ought not to discourage surgeons from attempts to relieve a fatal disease, but rather to direct their attention to less serious operations than excision, which might possibly effect a cure. If the disease were a simple hypertrophy, would not ligature of the splenic artery reduce the size of that organ and bring about relief? Ligature of the main artery in cases of Barbadoes leg was followed by great reduction in the size of the limb, and a similar operation for the spleen held out hopes of cure. The operation might be difficult, but, with a free incision, ought not to be impracticable, and could scarcely be so serious as that for the removal of the whole organ.

Mr. REEVES now had a case in which the operation had been seriously contemplated, but as Dr. S. Mackenzie had given such a good account of it, there was no need for him to say anything on that head. His reasons for desiring to operate were the youth of the patient, the fact that the disease was not far advanced, and the physical vigour, as well as the determined mental condition of the patient, and his friends, who—after every risk was plainly put before them—decided to have the operation done. Mr. Reeves had

looked up twenty-one cases of splenectomy, and found that about a quarter had recovered. But, very shortly after, Mr. Collier's paper appeared, pointing out that all the leucocythæmic cases which had been operated on had died. This, of course, made him hesitate; but on analysing the table he found that most of the cases were much older than his patient, and were in a more advanced stage of the disease, so that he was still inclined to give his patient the forlorn hope offered by operation; but on consultation again with Dr. S. Mackenzie it was decided that, although the blood-condition had much improved, still, on the whole, operation must not now be thought of. He thought that, if patients were seen in an earlier stage, the operation would have a much better chance, but at present our knowledge was very imperfect, and, seeing that leucocythæmia was so common among some of the lower animals, it was highly desirable that observations and experiments on them should be made, with the view of ascertaining if removal of the diseased spleen was followed by permanent benefit. He had thought of tying the splenic artery, but shrank from it, because he feared that the spleen might necrose and necessitate its removal, thus adding a second severe operation to one which would, no doubt, be difficult, and, under the circumstances, very hazardous. It was most desirable, by selecting proper cases, to ascertain if surgery could be of use, where medicine had, unfortunately, been hitherto invariably unsuccessful. Malaria was said to be a frequent cause of the disease, and, without denying this, he would ask, was it a common cause, or a cause at all, in the lower animals? Dr. Eadie, of Pimlico, had recently consulted him with reference to a case of a strong, well-built gentleman, aged twenty-two, who had never been exposed to malarial influences, whose circumstances had always been unusually good, and who had never had syphilis. At one time this patient was extremely weak, and looked very like dying, but lately he had much improved in blood-condition and general strength. His spleen was about three and a half times its normal size. This case was quoted as showing that something other than malaria, insufficient food, hygienic surroundings, and syphilis, was at work in this instance.

Dr. GOODHART said that Mr. Warrington Haward had asked the question—a very important one—whether a mere excess of colourless corpuscles in the blood was of itself sufficient so to interfere with the coagulability of the blood as to condemn an operation. Dr. Goodhart thought that that question was capable of answer by the experience of the post-mortem room. This, now, in his experience, amounted to five or six cases, and in all it had been the same, that the coagula in the heart and great vessels were peculiarly flimsy, and in general appearance more like pus than blood. Of course it might be said that this was hardly an argument, seeing that by the time a case arrived at a fatal issue it had probably overstepped the distinction drawn by Mr. Haward between early and late leucocythæmia. But that was not the case. So far as the blood was concerned, cases were fatal with a far less proportion of white and red corpuscles than one in six. This proportion exists in Mr. Haward's case, and therefore, so far as the blood was concerned, he thought it might always be said of it that it was in a similar condition to that found in fatal cases. Looking, also, as he did, upon the existence of leucocythæmia as a late symptom, he doubted whether any case of leucocythæmia could, with propriety, be called early. But there was also another point to be considered, and that was the effect of an operation and the resulting pyrexia upon the condition of such blood as existed in these cases. He thought he had observed that they bore fever badly, and that the blood had a tendency to be more pus-like under such circumstances. Now that antiseptic treatment had reduced in great measure the risk of fever, such an argument had less weight. Not if there was any truth in it—it should not be altogether overlooked in considering the risks of the operation—as it carried them beyond the mere operation itself into the larger stages of convalescence.

Dr. MARCET related particulars of the case of a dog from which the spleen had been removed about thirty years ago; the animal had subsequently lived many months, without apparently being in the least degree altered by the operation. It had then died from another cause altogether.

The PRESIDENT thought it most unfortunate that Mr. Haward's case had been fatal. Death had apparently

resulted from shock, although ether, not chloroform, had been given. The case was discouraging, as it was one favourable for the operation, and no hæmorrhage had followed. Ligature of the splenic artery would be a dangerous proceeding. Experiments should perhaps be performed on the lower animals, to see if the spleen could live after ligature of its main artery, and if animals afflicted with leucocythæmia were cured by the removal of the spleen.

Mr. HAWARD said it was not at first suspected that the patient had leucocythæmia, although she had a large spleen. It was true that, in Mr. Collier's tables, the mortality after splenectomy in leucocythæmia was very great; but in this case there was no evidence of blood-change in the direction of leucocythæmia beyond that given by the microscope. The cause of death was not due to hæmorrhage. The spleen was easily torn; and, at the rent which occurred in its substance during the operation, the hæmorrhage was quite momentary, and no great amount of blood was lost. There was no oozing from the abdominal wall, and no difficulty in arresting the hæmorrhage. Ligature of the splenic artery would be a very difficult operation if the spleen were much enlarged. Perhaps in future operations a clamp might be placed around the vessels, the spleen removed, and the vessels subsequently tied. The spleen had been removed in many cases, and the patients had recovered; so that the spleen did not appear to be a very essential part of the human economy. But, if there were an early stage of leucocythæmia, it came to be a question whether the operation should be attempted. Dr. Goodhart's remark as to the feeble clotting power of the blood after death from leucocythæmia should be remembered.

NEPHRECTOMY FOR SCROFULOUS KIDNEY.

Dr. GOODHART and Mr. GOLDING-BIRD communicated joint notes of this case, which was that of a young man who had suffered from symptoms of renal affection for fifteen months prior to his first coming under observation. His emaciated state and general cachectic condition, combined with the pyuria and right lumbar pain from which he suffered, pointed at once to a scrofulous pyelitis on the right side. All the other viscera were healthy. Combined abdominal and lumbar palpation on the right side proved the presence of an elastic tumour on the site of the kidney that was tender, and this was found, on watching, to vary in size inversely as the bulk of the pus passed in the urine. After due consideration, it was agreed upon by the authors that active steps should be taken to afford relief—their reasons being founded upon the almost universal tendency of these cases rapidly to go to the bad; the proved inefficiency of medicines to arrest the progress of the disease; the fact that the disease is at first, at least, local; and that it is only later on that other organs become infected and diseased. It was further agreed that, in the patient's present condition, anything palliative, even in the way of tapping the swelling, would be but loss of time, and making demands on his strength to no purpose. Nephrectomy was therefore decided upon and performed; the whole of the kidney was removed, after tapping it through the wound, in order first to diminish its bulk. It weighed ten ounces, and was a characteristic specimen of scrofulous kidney. Soon after the operation, extreme collapse supervened, from which the patient never rallied. At the inspection, the right urinary organs and the bladder were the only parts diseased; the latter, however, not irrecoverably so. While the gravity of the operation alone might account for the death, yet it was noticed that the pulse did not fail during the operation, neither on the necessary manipulation of the adrenal structures, nor at ligature of the pedicle. The collapse supervened at once on returning the patient to bed; and the possibility of the carbolic acid of the spray being absorbed by so large a raw surface, and in such close proximity to the large lymphatic sac (or peritoneal cavity), was suggested in explanation of the fatal ending to the case.

Mr. CLEMENT LUCAS considered that the operation, at which he was present, had been most carefully performed, and he thought the incision was the best for the case. He alluded to a case in which he had opened the kidney six years before the performance of nephrectomy, and there had been a discharge from the loin for all those years. He thought the ureter should be first tied, and cut through, and then the vessels could be the more easily ligatured. There had been a subcutaneous injection of morphia after the operation, which he thought might possibly have added to

the patient's collapse. After operations for hernia, where morphia had been injected, he had seen two cases of collapse and death; so that he never now gave a morphia suppository after such operations until the patient had quite recovered from the chloroform. In his case of successful nephrectomy the man was now well, and his wife had borne a child since the operation. Pus had continued to be passed in the urine for months after the operation, and had then gradually disappeared.

Mr. GODLEE said the pleura went down to, and even below, the last rib; so that he considered the removal of a part of that bone a very serious operation. He presumed the tuberculous mass in the prostate might have been previously felt. It seemed to him that the operation was defective, inasmuch as it contemplated the removal of only a portion of a widespread tuberculous disease.

Mr. MORRANT BAKER said that in a case of the kind under his care he had at first opened down to the kidney only, hoping the organ would dwindle; but it did not diminish after several weeks' waiting, and the subsequent operation was only rendered the more difficult, as the tissues around the kidney had meanwhile become much matted together. The first operation seemed, in fact, to have been useless. He had since seen the child, as she was ill. She was feverish, and had afterwards died; but the wound in the loin had quite healed some months before. The urine passed a few days before death had not been distinguishable from healthy urine. Perhaps, if she had had two kidneys, to remove effectually the products of the feverish attack, she might have also recovered from the illness which proved fatal. He desired to ask the President his opinion as to whether the exposure of such a large surface for nearly two hours to the carbolic spray added to the danger of a fatal collapse.

Mr. T. SMITH said he had never seen a case in which, if one kidney was tuberculously diseased, the other kidney and other parts of the urinary tract were free from disease. At any rate, after nephrectomy for tuberculous kidney, a portion of ureter similarly diseased would be left.

Mr. KNOWSLEY THORNTON had had a tolerably large experience in operations on the kidney; he had performed lumbar nephrotomy three times, and abdominal nephrectomy three times, and all the patients had recovered. He was thus in a position to speak from experience as to each method, and he had no hesitation in giving the preference to the abdominal section, by incision outside the rectus abdominis, instead of in the median line. This was advocated by Langenbeck, of Berlin, at the Congress, and Mr. Thornton had found it most satisfactory. There was even less hæmorrhage from the parietes than in the median incision; there was little or no exposure of the general peritoneal cavity; the renal vessels could be reached and ligatured before the kidney was enucleated, and much hæmorrhage thus saved; and there was much less hæmorrhage in enucleating through the outer layer of the mesocolon, than through the inner layer, where most of the vessels lay. He had twice operated by this incision during the last few weeks, and both patients had recovered with but little fever; indeed, convalescence was almost as rapid as after an ordinary ovariectomy. He had brought out the end of the ureter in each case, and fixed it in the wound; and this he regarded as important in avoiding sepsis. He had in one of the cases previously performed lumbar nephrotomy, hoping to cure by free drainage, but the only result was to increase the difficulty of the after nephrectomy, as in Mr. Morrill Baker's case; and he could not at all agree with Dr. Goodhart as to the advisability of making nephrotomy an introduction to nephrectomy. He had, however, found it possible to destroy the existing sepsis by the free use of tincture of iodine. In his last case the kidney weighed four pounds seven ounces, and contained twenty pints of pus, and it would have been quite impossible to perform the operation through the loin. From a careful consideration of the published cases, and from his own experience, he would strongly advocate Langenbeck's incision in all cases, and he believed that, with experience and care, the operation, though performed through two layers of peritoneum, might be made practically an extra-peritoneal procedure, the peritoneum being closed immediately the opening for enucleation had been obtained. In reply to Mr. Morrill Baker, he might mention that he had had several cases of abdominal operative surgery, under the carbolic spray, lasting two or nearly three hours, and he considered

the chance of danger from the spray was very little indeed.

Dr. BARLOW said that, in a case operated on by Mr. Cowper, the patient, a girl, was in good health several months after the operation. In her case the pyelitis, as in many other instances known to him, had been located in one kidney only.

Mr. BARKER said that, as to the removal of the last rib, in one case where the end of the rib was resected, the patient became cyanosed, with all the symptoms of a collapsed lung, and had died. In another case, operated upon by himself, he had unintentionally removed the end of the last rib in cutting down upon the kidney; and no ill result had followed.

Mr. REEVES said that, although he had never had occasion to do nephrectomy, he had cut down on the kidney for exploratory purposes, and had seen nephrotomy and excision of the organ in three or four instances. The excision adopted was the usual oblique one, as for lumbar colotomy, but nearer the rib. If more room were needed, this incision might be increased, or one at an angle to it added. He thought that intra-periosteal excision of a portion of the last rib was justifiable in cases where the organ could not be extracted without it, but he quoted a case in which a large kidney was removed by pulling up the last rib, and thus getting an inch to an inch and a half more room. This mobility of the last rib should be utilised as much as possible before proceeding to the somewhat severe measure of excising a part of it. There were some cases of cystic kidney which could not be removed by the lumbar or extra-peritoneal method; and he had recently assisted at such a case, which, before and during operation, had closely simulated an ovarian tumour, so as to deceive experienced ovariologists. Had it been attempted to remove this through the loin, the operation would either have failed, or only been concluded with serious and unsurgical damage to the peritoneum. He therefore thought that large cystic kidneys should be removed by the intra-peritoneal method, although two layers of peritoneum were incised, as nowadays there was little risk in properly selected abdominal operations.

The PRESIDENT said he was pleased to hear that the means adopted by Mr. Thornton to render the wounds aseptic by the free use of tincture of iodine were efficacious. He had recently seen a lady, aged twenty-four, sinking, with pus in the urine, in whom it was doubtful as to whether there were calculous or scrofulous kidney. Under chloroform, the kidney was felt to be large. Upon puncture of the organ, pus escaped; no calculi were discovered. The wound in the kidney substance was enlarged, and cavities were detected, from which four or five ounces of pus escaped. Two large drainage-tubes were introduced; the wound was sewed up, and covered with eucalyptus gauze. It might be asked, Why was this done? Because, in some cases, after the letting out of such offensive pus, the next day only a serous oozing would occur, although bacteria might have been present when the pus was first discharged. Antiseptic treatment answered its purpose completely in such cases. That patient was now recovering; the discharge was lessening, and the wound was healed. Even if the kidney had proved to be tuberculous, and had had eventually to be removed, his patient could not at that time have survived the major operation of nephrectomy. He had never known the carbolic spray injure the patient, although used during a long abdominal operation.

Dr. GOODHART said that as to the question of the removal of a part only of the disease, he believed the disease commenced in one kidney, then went to the bladder, and up the other ureter to the other kidney, which, after a year or two, became diseased. He did not think it was an argument against the operation that the suppuration in the urine lasted afterwards, for it very soon diminished, and then ceased entirely.

Mr. GOLDING-BIRD said the patient was collapsed before he was put to bed, and did not die from the morphia, as he had quite roused. Neither did he think the pleura could have been hurt in any way. He thought that each case must be decided on its own merits, so far as the question of nephrotomy or nephrectomy was concerned.

THE corner-stone of the new Convalescent Home, Folkestone, is to be laid on the 18th inst. by the Duchess of Edinburgh. The building will cost £16,000.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 28.

JOHN MARSHALL, F.R.C.S., President, in the Chair.

ON THE PRESENCE OF BILE IN THE SALIVA, AND ON THE VARIATIONS IN THE AMOUNT OF SULPHOCYANIDE OF POTASSIUM IN THE SALIVA OF PERSONS AFFECTED WITH DIFFERENT DISEASES.

Dr. SAMUEL FENWICK read a paper on the presence of bile in the saliva, and on the variations in the amount of sulphocyanide of potassium in the saliva of persons affected with different diseases. The author commenced by stating that it is generally believed that in cases of jaundice the saliva does not contain any of the colouring matter of the bile. He has, however, found a yellow colouring matter in the saliva of every case he has examined, after evaporating it by means of a gentle heat. A bitter taste is often complained of by patients affected with jaundice, and it has been suggested that it might result from the presence of the biliary acids in the saliva. The author has not been able to prove whether this opinion is correct or not, but he details a case in which an intense bitterness was complained of by a person unaffected with jaundice, in whose saliva he found traces of the biliary salts by the ordinary tests. Having proved that both the colouring matter and the salts of the bile occasionally presented themselves in the saliva, an attempt was made to ascertain whether the amount of the sulphocyanide of potassium usually present in the saliva varies in different diseases, and whether such variations co-exist with any particular diseases. For this purpose, the saliva was examined in a large number of patients treated in private and hospital practice, and the results were afterwards analysed. As it had been stated by some physiologists that the sulphocyanide was only the result of decomposition, set up in the saliva by decayed teeth, and by others that it was produced by tobacco-smoking, these two conjectures were first examined. The state of the teeth was carefully remarked in eighty-seven hospital patients, and it was found that there was no relation between the amount of decay in them and the quantity of the sulphocyanide in their saliva. The habits of 213 persons were inquired into respecting their use of tobacco, and it was found that the amount of the sulphocyanide was not affected by the habit of smoking. The quantity of sulphocyanide was almost always deficient in cases of jaundice arising from obstruction; thus, of twenty-three cases, it was very deficient in eighteen, and in some scarcely a trace could be found. From this the author conjectures that the amount of this salt in the saliva depends on the quantity of the bile that reaches the intestines; a conclusion that seemed to be supported by two cases of hepatic fistula, in both of which it was also very deficient. Where jaundice was absent, one of the chief circumstances that appeared to regulate the amount of the sulphocyanide was the quantity of food taken by the patient; thus, it was always deficient in oesophageal stricture, and in cancer of the stomach. Persistent vomiting, diarrhoea, and dysentery produced a similar result, probably by removing the food before it could be fully digested. It was also deficient in cases of severe atonic dyspepsia, and in all cases of chronic disease where the appetite was very bad. The sulphocyanide was found to be in excess in fat persons and in those who were gaining flesh; deficient in those who were thin or rapidly losing weight. It was greatly in excess in all cases of acute rheumatism (thirty-six cases examined), and reached the maximum in the second week of the disease. It was also in excess in all the cases of acute gout, and in most of the persons liable to what are termed "bilious headaches." In the early stages of all inflammatory disorders there was an excess, for instance, in gastric catarrh, in acute pleurisy, erysipelas, diseased kidneys, and in phthisis, but it sank below the average in the later stages of these diseases. The author points out that the fibrine of the blood has been found to be in excess in most of the above diseases, such as acute rheumatism, gout, erysipelas, and acute inflammations, and he suggests that an unusual amount of sulphocyanide in the saliva is perhaps the consequence of an excessive excretion of unoxidised sulphur, resulting from the large amount of albuminous material of the blood that has been altered

by the inflammatory process, and thereby rendered unfit for organisation into healthy tissue.

Dr. MARCET said little was known of the sulphocyanides in the saliva. They were only known by their chemical reaction, and had never been isolated. This, however, was useless for clinical purposes, where the colour-tests must suffice. Dr. Fenwick's observations were numerous and reliable. Sulphocyanide seemed to have some relation to digestion, though what that was no one seemed to know; perhaps it also partook of the nature of an excretion.

Dr. FENWICK said the quantity of sulphocyanide in the saliva was so small that colour-tests could alone be used. It was only by collecting a great number of cases that any light could be thrown on the subject.

A CASE OF EXCISION OF A STRICTURE OF THE DESCENDING COLON THROUGH AN INCISION MADE FOR A LEFT LUMBAR COLOTOMY.

Mr. BRYANT read the record of a case of stricture of the descending colon in which he excised the diseased segment of bowel through the wound made for a left lumbar colotomy, the patient recovering. The operation was performed on a lady aged fifty, who had suffered from complete obstruction for eight weeks, and was very feeble. The stricture could not be felt from below. The bowel was removed through the oblique incision made for left lumbar colotomy, by simply pulling the segment strictured through the wound, and stitching each portion of the bowel, with its two orifices as divided, to the lips of the wound. The stricture was of the annular kind, and involved about one inch of the bowel. It was so narrow as only to admit the passage of a No. 8 catheter. The preparation was exhibited with microscopical appearances of the growth in section as made by Dr. Goodhart. Mr. Bryant said he believed the operation he had performed was a new one, and that it was applicable to not a few of the cases of stricture of the descending colon. It had suggested itself to his mind from seeing cases of localised or annular stricture of the bowel which were free and movable, both in operations of colotomy as well as in the post-mortem room; but the case read was the first in which he had put the suggestion into practice. He pointed out how these annular strictures were generally local diseases, and consequently how desirable it was that they should be removed where possible. He suggested that the question of excision of the diseased growth should be entertained as soon as the diagnosis of the case was made, and that to every case of colotomy for chronic obstruction of the descending colon, the possibility of being able to remove the diseased bowel by operation should be considered before the bowel is opened for a colotomy operation. He then showed how desirable it was that the question of excision or of colotomy should not be postponed till the patient's powers were too feeble to bear either, as is now too often the case. He stated that he did not regard the operation he had performed in a more serious light than he did a colotomy in which the peritoneum was wounded.

Mr. GEORGE POLLOCK thought Mr. Bryant's case highly creditable to himself and to British surgery. He did not know of such another case, though the history of some cases of colotomy for stricture seemed to favour the proposal. He hoped that this case would encourage others in dealing with similar cases; especially he would urge early operation.

Mr. HARRISON CRIPPS thought such an incision as proposed would seldom afford sufficient space; it would be better to cut down in front, just outside the line of the rectus.

Mr. HOWARD MARSH also recommended the anterior section. The cases where Mr. Bryant's operation would be suitable were rare. He likewise thought that early operation was advisable.

Mr. MOORE thought that in cases like Mr. Bryant's lumbar colotomy was best, as it was better to cut through one layer of peritoneum than two.

CHRONIC TONSILLITIS.—Dr. Hague states that he has successfully treated several cases of chronic tonsillitis in children by means of a prescription of the late Prof. James Aitken Meigs, viz., twenty grains of chromic acid to an ounce of water, applied by means of a camel's-hair pencil. Prof. Krishaber states that he has treated more than forty cases successfully by means of the galvano-cautery; the operation is without pain.—*New York Med. Record*, March 18.

OBITUARY.

PROFESSOR OSCAR SIMON.

PROF. OSCAR SIMON, who bade fair to become one of the most distinguished dermatologists in Germany, has just died at the early age of thirty-seven. He had for some years past at intervals suffered from attacks of vomiting and other symptoms of disease of the stomach; but his energy and elasticity seemed to surmount his disorder, and so recently as last year he entered with great energy into the work and excitement of the London Congress. On returning home, however, he soon fell ill again, and, after suffering much, died on March 2, the autopsy revealing diffuse scirrhus infiltration of the stomach, with abundant sero-purulent effusion into the abdominal cavity from chronic peritonitis. Born at Berlin in 1845, Oscar Simon, who studied under Du Bois, Virchow, and Traube, repaired to Vienna as the great school of dermatology, to the study of which he intended devoting himself. After his return to Berlin he qualified as Privat-docens, and became a very successful teacher of his speciality, having large classes both of students and practitioners. In 1873 he published his well-known "*Localisation der Hautkrankheiten*," and in 1878 was appointed Clinical Professor of Dermatology and Syphilis to the Medical Faculty of Breslau. Here he received the most flattering recognition and his practice speedily increased; and little did his appearance portend that his career would be so speedily cut short.

HOFRATH PROFESSOR ADALBERT DUCHEK.

THE Vienna Medical Faculty has just sustained an addition to its many recent losses in the death of Dr. Duchek, the celebrated Professor of Clinical Medicine. He was born in Prague in 1824, and in 1848 became assistant-physician to Prof. Hamenik, Director of the Lunatic Asylum of that city. He afterwards employed himself much in the study of pathological anatomy. Some of his journal publications soon excited great attention, and great as his fame as a clinician has since become, he has never produced any substantive work, although his articles in medical periodicals have been numerous and important, and especially in the *Journal of the Vienna Medical Society*, of which he was for many years the editor. After filling professorships at Lemberg and Heidelberg, he was nominated one of the professors to the revived Joseph Academy in 1858 at Vienna; and on the retirement of Skoda from the Faculty in 1871 he was chosen unanimously as his successor. His clinical teaching was of the highest order, and his diagnostic power everywhere acknowledged. He was from the kindness and uprightness of his character an immense favourite of the students; while the overcrowded state of his consultation-room, resorted to as it was from far and near, testified to the great reputation which he had acquired in private practice. He died from valvular disease of the heart, consequent on an attack of rheumatism. It is expected that Prof. Bamberger will be his successor, Prof. Schrötter in the meantime undertaking the duties of the chair.

PROFESSOR JOSEPH PANCOAST.

FROM the *Philadelphia Medical Reporter* and *Philadelphia Medical News* we gather the following particulars of the career of this distinguished anatomist and surgeon.

Joseph Pancoast, M.D., Emeritus Professor of Anatomy in the Jefferson Medical College, died March 7, in the seventy-seventh year of his age, having been born in 1805. Having graduated in 1828, he settled in Philadelphia, and made anatomy his special study, teaching it in a private school successfully for seven years. In 1838 he was appointed one of the Surgeons to the Philadelphia Hospital and to the Chair of Surgery in Jefferson Medical College. In 1841 he exchanged this chair for that of Anatomy, which he held until 1874. In 1854 he was made one of the Surgeons of the Pennsylvania Hospital, but resigned that post in 1864. For very many years he enjoyed a large and lucrative practice. Besides translating and editing various works and contributing a great number of articles to the medical periodicals, Prof. Pancoast, in 1844, published his well-known "*Operative Surgery*." We say "well-known" as far as the United States is concerned, for, as far as we can learn, no copy of a work which there has acquired so great a reputation is to be

met with in London! During the first nine years of this rather expensive work 4000 copies were sold, and in 1852 a third and enlarged edition appeared.

"In looking back upon the career of Dr. Pancoast," the writer in the *Medical News* observes, "one cannot fail to be strongly impressed with the belief that he was a great surgeon—pre-eminently an operative surgeon. The fame of his skill was national, indeed almost world-wide. His operations were characterised by boldness of conception and by a consummate brilliancy of execution, based upon a real, thorough anatomical knowledge. This knowledge was in him peculiar and of a broad type. It was not merely the anatomy, the topography, the pathology, and the surgery of the books, but it was all these combined and made applicable for useful purposes. His information was, as it were, at his fingers' ends, always capable of immediate and practical application. It has happened that, although he was a bold operator, and one who did not fear to take what might seem perilous chances, yet in reality he was a most careful operator, self-reliant, and confident in his own ability, always sparing the blood and husbanding the resources of his patient. He was one who knew well how 'out of the nettle danger to pluck the flower safety.' Another marked trait of Dr. Pancoast, and one for which we think he did not always receive due credit, was the great care he expended upon the examination of the patient before operation. He would see him over and over again, ply him with questions, examine him, study him minutely, until he felt that he had made himself master of the individual, and had detected his idiosyncrasies. We suspect, indeed, that much of his operative success—for he was undoubtedly a successful operator—was due to his unwearied assiduity in this respect. As an operator, moreover, he was ingenious and original: he devised a number of new procedures, which have successfully withstood the test of time, and which are now recognised and known as his conceptions. As a teacher of anatomy and a clinical instructor, his influence over his classes was very great. His whole object was to teach anatomy—not the anatomy of the dead, but rather of the living. Anatomy was to him a living, clinical study—medical anatomy, surgical anatomy, anatomy *applied*. The thoughtful student who faithfully attended his lectures could not fail to carry forth with him a mass of practical information of incalculable value in his future professional life. Deeply imbued as Prof. Pancoast was with the learning of books, the charm of his lectures lay in that unwritten surgery, the outcome of experience, which he instinctively taught. It was this, more than anything else, which gave a value to his anatomical teachings that only those who have heard him can appreciate."

EXPENSE OF MEDICAL STUDY AT VIENNA.—Dr. Oppenheimer, having seen exaggerated statements respecting the expense of medical study at Vienna, in a note addressed to the *Louisville Med. News*, March 11, gives his own experience, derived from a stay of nearly a year and a half in that capital. Living, he says, is dearer in any part of Europe than it is in the United States, as far as the necessities of life are concerned, but still the student may live comfortably at Vienna, and pay for from eight to ten classes (or sometimes private courses, which are well worth the extra payment) for \$60 per month. This implies that he is at Vienna for work, but still allows of his visiting theatres, concerts, &c., which there are cheap. The study of medicine there is altogether by the bedside, for which Vienna offers unrivalled advantages. In the obstetric wards, from twenty-five to thirty deliveries may be seen in the twenty-four hours, and students are allowed to remain in the wards during the night. In the gynaecological wards some interesting operation may be witnessed almost every day. Billroth's clinic is well attended by male and female doctors, and considerable work is accomplished every morning. A marked feature is that members of the class are called in alphabetical order to perform minor operations, or to assist in major ones. "Billroth has seen eleven assisting at one time in a case of ovariectomy. Wells, Keith, Thornton, and Bantock require only three, and there is far less fuss and turmoil besides. Wölfler, Billroth's first assistant, bids fair to follow in his master's shoes. He is a bold and skilful operator. His private course will be found almost indispensable to the ambitious student."

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 5th inst., and when eligible will be admitted to the Pass Examination, viz.:—

Andrews, Charles, student of University College Hospital.
Bateson, John F., of the Edinburgh School.
Bolton, George H., of St. George's Hospital.
Dixon, Harold G., of the Cambridge School.
Garrod, Archibald E., of St. Bartholomew's Hospital.
Gay, John, of St. Bartholomew's Hospital.
Gayford, Charles, of St. Bartholomew's Hospital.
Innes, Charles B., of St. Bartholomew's Hospital.
Leech, Priestley, of the Manchester School.
Milner, James, of the Leeds School.
Morgan, George, of the Charing-cross Hospital.
Reilly, Alexander Y., of the Middlesex Hospital.
Scott, George H., of the Leeds School.
Sheppard, Henry A., of the Charing-cross Hospital.
Smith, Thomas M., of the Manchester School.
Tuck, Harry, of the Westminster Hospital.
Upham, Charles H., of St. Bartholomew's Hospital.
Wild, George S., of the Liverpool School.
Young, Thomas, of the Birmingham School.

Five candidates were rejected. The following gentlemen passed on the 6th inst., viz.:—

Allden, George H., student of the London Hospital.
Bidwell, Herbert, of St. Thomas's Hospital.
Bowhay, Albert, of the Charing-cross Hospital.
Carpenter, George A., of St. Thomas's Hospital.
Doyne, Herbert W. G., of St. George's Hospital.
East, Charles H., of King's College Hospital.
Elliott, John, of St. Bartholomew's Hospital.
Francis, Alfred G., of St. Bartholomew's Hospital.
Habershon, S. H., B.A. Cantab., of St. Bartholomew's Hospital.
Mason, Edward R. F., of the Leeds School.
Maynard, Frederic P., of St. Bartholomew's Hospital.
Mead, Francis H., of St. George's Hospital.
Nelham, Albert E., of the Charing-cross Hospital.
Orr, Andrew A., of St. Bartholomew's Hospital.
Pennington, Thomas, of the Manchester School.
Rees, William T., of the London Hospital.
Staddon, John R., of St. Thomas's Hospital.
Tanner, Charles E., of St. Bartholomew's Hospital.
Whelpton, Edward S., of St. Thomas's Hospital.
White-Cooper, George O., B.A. Cantab., of St. George's Hospital.
Williams, John T., of St. George's Hospital.

Four candidates were rejected. The following gentlemen passed on the 10th inst., viz.:—

Bowman, Henry C., student of the Manchester School.
Chapman, Harry C., of St. Bartholomew's Hospital.
Evans, John M., of the London Hospital.
Francis, Alfred C., of St. Bartholomew's Hospital.
Harrop, George B., of Guy's Hospital.
Hartman, Herbert D., of the Manchester School.
Hentsch, George F., of Charing-cross Hospital.
Jackson, Arthur M., of St. Bartholomew's Hospital.
Lavie, Tudor G., of St. George's Hospital.
Mathew, Charles P., of St. Bartholomew's Hospital.
Morris, Edwin J., of Charing-cross Hospital.
Murray, George A. E., of St. Bartholomew's Hospital.
Napier, Francis H., of St. Bartholomew's Hospital.
Nutting, Philip H., of the London Hospital.
Page, H. Marmaduke, of St. George's Hospital.
Parfitt, Edward B., of University College Hospital.
Penny, Francis, of King's College Hospital.
Reilly, Charles C., of St. Thomas's Hospital.
Shackel, George A., of St. Thomas's Hospital.
Somers, Edward, of the Manchester School.
Spreat, Frank A., of St. Bartholomew's Hospital.
Tyler, Alfred J. R., of Charing-cross Hospital.
Welsford, George F., of St. Thomas's Hospital.

Four candidates were rejected. The following gentlemen passed on the 11th inst., viz.:—

Brazil, Walter H., student of the Manchester School.
Carr, John W., of University College Hospital.
Chambers, Herbert W., of St. Bartholomew's Hospital.
Cottell, Reginald J. C., of St. George's Hospital.
Druitt, Arthur B., of St. Thomas's Hospital.
Failes, Frederick G., of St. Bartholomew's Hospital.
Gardner, William T., of St. Bartholomew's Hospital.
Gregory, Seth, of St. Thomas's Hospital.
Hichens, Frank, of the London Hospital.
Jefferis, James E., of University College Hospital.
Kebbell, Charles, of St. Bartholomew's Hospital.
Langston, John J., of the London Hospital.
Lawson, Robert, of St. Thomas's Hospital.
Liesching, Charles E., of St. George's Hospital.
Potter, Henry, of St. George's Hospital.
Roughton, John P., of St. Bartholomew's Hospital.
Santi, Philip R. W., of St. Bartholomew's Hospital.
Smith, Edward C., of St. Bartholomew's Hospital.
Smith, Edward J., of the Charing-cross Hospital.
South, Henry E., of St. George's Hospital.
Volekman, Edwin, of the London Hospital.
West, Charles J., of St. Thomas's Hospital.

Four candidates were rejected. The following gentlemen passed on the 12th inst., viz.:—

Ashley, Sydney D., student of the London Hospital.
 Bell, George C., of St. George's Hospital.
 Caldecott, Charles, of Guy's Hospital.
 Chadwick, James, of Guy's Hospital.
 Damian, Francis G. C., of St. George's Hospital.
 Fletcher, George R. J. W., of the Charing-cross Hospital.
 Floyer, Frederick A., of St. Thomas's Hospital.
 Foot, Ernest G., of the Middlesex Hospital.
 Fox, Herbert, of St. Bartholomew's Hospital.
 Godfrey, Henry H., of the London Hospital.
 Gough, J. Harley, of the Manchester School.
 Hall, Alfred R., of St. Mary's Hospital.
 Lawrence, Alfred, of University College Hospital.
 Morris, Herbert M., of the Charing-cross Hospital.
 Nowell, Barnes, of St. George's Hospital.
 Phillips, William E. P., of Guy's Hospital.
 Price, Alfred T., of St. Bartholomew's Hospital.
 Robertson, Robert S., of the Manchester School.
 Saw, Francis A., of the Charing-cross Hospital.
 Shadwell, H. Winstanley, of St. Bartholomew's Hospital.
 Walker, Henry S., of University College Hospital.
 Ward, Charles W., of the Charing-cross Hospital.
 Wigmore, Frederic H., of St. Bartholomew's Hospital.
 Woakes, A. Beaumont, of St. Thomas's Hospital.

Four candidates were rejected.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 6:—

Banerjee, Mahendra Nath, Calcutta.
 Bostock, John, 29, Rutland-road, Victoria-park.
 Brooks, Walter Tyrrell, Penge Park-lane, Stoke Newington.
 Hart, Marmaduke James, South Hill Park, Hampstead.
 Hoyland, Stanley Stenton, Clifton-road, Rotherham.
 Maitland, Alfred Derwent, 10, Chester-place, W.
 Willcocks, Arthur Durant, Scarsdale-villas, Kensington.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Cox, Joseph Bethell, St. Bartholomew's Hospital.
 Greet, Charles Harvey, London Hospital.
 Smith, W. A. Winwood, St. George's Hospital.
 Todd, Henry, London Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

HOUGH, C. H., M.R.C.S.—Surgeon to the Derby Provident Dispensary, *vice* T. Highton, M.R.C.S., etc., resigned.

BIRTHS.

COUPER.—On April 4, at 80, Grosvenor-square, W., the wife of John Couper, F.R.C.S., of a daughter.
 HETT.—On April 8, at 1, Ledbury-road, Bayswater, the wife of Geoffrey Hett, M.D., of a son.
 HUTCHISON.—On March 29, at Chipping Norton, Oxon, the wife of G. Wright Hutchison, M.D., M.R.C.P., of a son.
 OGLE.—On April 3, at Lutterworth, the wife of J. Reynold Ogle, M.R.C.S., L.R.C.P., of a daughter.
 PRESTON.—On February 17, at Lincoln, Canterbury, New Zealand, the wife of A. Chevallier Preston, M.R.C.S., of a daughter.
 POPE.—On April 10, at Broomsgrove Villa, Shepherd's Bush, the wife of H. Campbell Pope, M.D., F.R.C.S., of a son, stillborn.

MARRIAGES.

FRAZER—WILSON.—On April 10, at Ootacamund, Robert Watson Frazer, Madras Civil Service, third son of W. Frazer, F.R.C.S.I., of Dublin, to Hannah, youngest daughter of the Rev. John Wilson, D.D., vicar of Holy Trinity, Knightsbridge.
 KING—ALTHAUS.—On April 12, at St. Paul's, Avenue-road, Sydney, son of the late Dr. Abraham King, of Bridgwater, to Anna, only daughter of Professor Althaus, of University College, London.
 ROBERTS—LANE.—On March 15, at Mooltan, India, Major Allan Scott Roberts, Judicial Assistant Commissioner, Delhi, to Janie Rose, eldest daughter of Surgeon-Major B. Lane, A.M.D.
 SAUNDERS—STUART.—On April 4, at Stoke, Everard Home Saunders, Surgeon R.N., to Augusta, daughter of John Stuart, Esq., St. John's, Newfoundland.

DEATHS.

GRAVES, CAROLINE BEATRICE, daughter of R. Graves Burton, M.D., at Hanwell, W., on April 4, aged 15.
 McMULLEN, TOM, son of Wm. McMullen, L.K. & Q.C.P. Ire., at 319A, Brixton-road, on April 7, aged 4.
 MARTIN, CURTIS, M.R.C.S., Brigade-Surgeon, at Ellangowan, Landour, India, on March 9.
 MOORE, ALFRED W., M.R.C.S., L.S.A., at 2, Bessborough-street, S.W., on March 24, aged 59.
 WILLCOX, ELLEN ERSKINE, wife of Robert Willcox Fleet-Surgeon R.N., at Sandford, Fareham, Hants.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon. Candidates must send certificates of registration, and also satisfactory testimonials of ability and good moral conduct. Applications to be addressed to the Secretary of the Hospital, on or before May 4. The election takes place on May 10.

CAMBRIDGE COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be duly registered medical practitioners and unmarried. Applications, stating age and qualifications, with testimonials, to be sent to T. Musgrave Francis, Clerk to the Visitors, on or before April 15.

CHELTEMHAM GENERAL HOSPITAL AND DISPENSARY.—Resident Surgeon. Candidates must be on the Medical Register as qualified to practise medicine and surgery; they will not be permitted to practise privately in either branch of their profession. Applications, with copies of testimonials, to be sent to the President, Cheltenham General Hospital, not later than April 17.

CHILDREN'S HOSPITAL, STEELHOUSE-LANE, BIRMINGHAM.—Assistant Resident Medical Officer. Candidates must be registered members of the medical profession, in accordance with the Act 21 Vict., cap. 90; and their certificates of registration, with their testimonials, must be sent to the Secretary at the Hospital not later than April 13. The election will be held on April 17.

NATIONAL DENTAL HOSPITAL, 149, GREAT PORTLAND-STREET, W.—House-Surgeon. Candidates must possess an L.D.S. degree. Applications, with testimonials, to be sent to the Secretary, Arthur G. Klugh, on or before April 26.

SCARBOROUGH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Candidates must be members of one of the Royal Colleges of Surgeons of the United Kingdom and registered under the Medical Act. Applications, with testimonial of recent date as to character, etc., to be sent to the Secretary, Hugh Watson, St. Mary's-walk, Scarborough (from whom all particulars may be obtained), not later than April 15.

SUNDERLAND INFIRMARY.—Junior House-Surgeon. Candidates must possess double qualifications. Applications, with testimonials, to be sent to the Chairman of the Medical Board on or before April 27.

TOWNSHIP OF MANCHESTER.—Resident Assistant Medical Officer. Candidates must be registered under the Medical Act, and possess both a medical and surgical qualification, and be unmarried. Applications, endorsed "Medical Appointment," stating age, and accompanied by testimonials, to be sent to George Macdonald, Clerk to the Guardians, Poor-Law Offices, New Bridge-street, Manchester, not later than April 15.

UNIVERSITY COLLEGE, LONDON.—Professor of Zoology and Comparative Anatomy. (For particulars see Advertisement.)

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Physician. (For particulars see Advertisement.)

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Ashbourne Union.—The Longford District is vacant by the resignation of Mr. E. Crockett: area 14,856; population 2395; salary £24 per annum. The Mayfield and Parwick Districts are also vacant by the death of Mr. R. D. Goodwin. Mayfield District: area 8603; population 3142; salary £25 per annum. Parwick District: area 12,957; population 1565; salary £16 per annum.

Midhurst Union.—Mr. Collins Curtis has resigned the Rogate District: area 24,460; population 4092; salary £110 per annum.

Plomesgate Union.—Dr. George Fletcher has resigned the Earlsbam District: area 9614; population 2439; salary £60 per annum.

Wycombe Union.—The Chinnor District is vacant by the death of Mr. Richard Lee: area 2686; population 1379; salary £20 per annum.

APPOINTMENTS.

Hartlepool Union.—Thomas G. Ainsley, M.R.C.S. Eng., B.M. Durh., to the Hartlepool District and Workhouse.

Hertford.—Charles Heisch, F.C.S., as Analyst for the Borough, *vice* Dr. Tidy, resigned.

Llandilofawr Union.—Thomas J. Evans, M.R.C.S. Eng., to the North District.

Llanfyllin Union.—John Gill, M.R.C.S. Eng., L.R.C.P. Lond., to the Guilsfield District.

Newark Union.—Henry Chambers Burrows, M.R.C.S. and L.R.C.P. Edin., to the Benington District.

Newark.—Mr. Alfred Ashby has been appointed Analyst for the Borough. Remuneration £15 15s. per annum and fees.

Richmond (Surrey) Union.—Richard L. Shone, M.R.C.S. Eng., L.S.A., to the Mortlake District.

St. Saviour's Union.—Cyril Lloyd Jones, M.D., M.R.C.S., L.S.A., to the Fifth District.

Taunton Union.—William B. Paulin, L.R.C.S. Edin., L.R.C.P. Edin., to the West Monkton District.

Williton Union.—Charles De Wolfe Heard, L.R.C.P. and L.R.C.S. Edin., to the Porlock District.

SOUTH KENSINGTON MUSEUM.—Mr. Edward Bellamy, F.R.C.S., Surgeon to the Charing Cross Hospital, will commence his course of lectures "On the Anatomy of the Human Form" on Friday, the 5th prox., at four o'clock, in the Science and Art Department of the above Museum.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 8, 1882.

BIRTHS.

Births of Boys, 1217; Girls, 1241; Total, 2458.
Corrected weekly average in the 10 years 1872-81, 2768·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	828	768	1596
Weekly average of the ten years 1872-81, ...	935·6	888·1	1803·7
corrected to increased population ...			
Deaths of people aged 80 and upwards ...	...	...	52

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	9	3	2	29	...	5	...	5
North ...	905947	...	3	1	5	32	1	3	...	3
Central ...	282238	...	4	...	4	12	...	1	...	...
East ...	692738	...	10	4	5	35	...	4	...	...
South ...	1265927	14	25	12	5	60	...	7	1	1
Total ...	3816483	14	51	20	21	168	1	20	1	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29·945 in.
Mean temperature ...	...	...	...	...	...	47·6°
Highest point of thermometer ...	...	...	...	...	...	62·0°
Lowest point of thermometer ...	...	...	...	...	...	35·8°
Mean dew-point temperature ...	...	...	...	...	...	42·7°
General direction of wind ...	...	...	...	...	...	E.N.E.
Whole amount of rain in the week ...	...	...	...	...	...	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 8, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending April 8.	Deaths Registered during the week ending April 8.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3893272	2458	1596	21·4	62·0	35·8	47·6	8·67	0·00	0·00
Brighton ...	109595	55	65	31·0	61·4	38·5	47·9	8·83	0·04	0·10
Portsmouth ...	129916	89	72	28·9	...	...	...	...	...	...
Norwich ...	83821	44	37	21·7	...	...	...	...	...	...
Plymouth ...	74449	44	45	31·5	54·2	42·7	47·1	8·39	1·15	2·92
Bristol ...	210134	151	85	21·1	61·8	35·1	47·3	8·50	0·09	0·23
Wolverhampton .	76756	57	37	25·2	57·9	31·9	43·6	6·45	0·29	0·74
Birmingham ...	408532	291	153	19·5	...	...	...	...	...	...
Leicester ...	126275	86	53	24·0	...	...	...	...	...	...
Nottingham ...	193573	128	85	22·9	59·6	35·0	45·4	7·44	0·23	0·58
Derby ...	83587	45	35	21·8	...	...	...	...	...	...
Birkenhead ...	86582	62	35	21·1	...	...	...	...	...	...
Liverpool ...	560377	400	270	25·1	58·9	34·5	45·1	7·28	0·20	0·51
Bolton ...	106767	71	57	27·9	59·0	35·2	43·9	6·61	0·05	0·13
Manchester ...	340211	223	190	29·1	...	...	...	...	...	...
Salford ...	184004	131	81	23·0	...	...	...	...	...	...
Oldham ...	115572	74	61	27·5	...	...	...	...	...	...
Blackburn ...	106460	61	59	28·9	...	...	...	...	...	...
Preston ...	97656	73	41	21·9	...	...	...	...	...	...
Huddersfield ...	83418	62	27	16·9	...	...	...	...	...	...
Halifax ...	74713	30	21	14·7	...	...	...	...	...	...
Bradford ...	188101	138	71	19·7	58·2	36·8	43·9	6·61	0·23	0·58
Leeds ...	315998	212	132	21·8	...	...	...	...	...	...
Sheffield ...	290516	206	103	18·5	57·0	35·0	45·1	7·28	0·39	0·99
Hull ...	158814	100	62	20·4	53·0	30·0	41·5	5·28	0·17	0·43
Sunderland ...	119065	68	54	23·7	62·0	35·0	46·3	7·95	0·06	0·15
Newcastle ...	147626	81	57	20·1	...	...	...	...	...	...
Cardiff ...	88724	47	31	18·7	...	...	...	...	...	...
For 28 towns ...	8457514	5485	3620	22·3	62·0	30·0	45·4	7·44	0·24	0·61
Edinburgh ...	232440	126	98	22·0	54·9	35·2	43·9	6·61	0·04	0·10
Glasgow ...	514048	352	247	25·1	58·5	32·5	44·2	6·78	0·00	0·00
Dublin ...	348293	184	185	27·7	54·6	35·2	45·5	7·50	0·79	2·01

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·95 in. The lowest reading was 29·66 in. at the beginning of the week, and the highest 30·18 in. on Saturday.

NOTES, QUERIES, AND REPLIES.

We that questioneth much shall learn much.—Bacon.

"DOCTORS' BILLS."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your "Notes, Queries, &c.," in last week's issue I see one inquiry headed "Doctors' Bills." It is worth a passing thought, and shows the necessity of an apprenticeship or preliminary training, so that men in practice may know how to keep books, and not be thus branded as fools or dishonest, or both. People have a right to know what they pay for, and if books were properly kept there would be no difficulty in the matter. I am, &c.,
April, 1882. AN OLD APPRENTICE.

A London Student and J. Williams.—There will be a "pass" examination for the diploma of membership of the College of Surgeons on Friday, the 14th inst. Why not consult our advertising columns?

A Street Nuisance.—The practice of blowing horns from omnibuses and stage-coaches in the streets of London is not unattended by danger. At an inquest held at St. Bartholomew's Hospital on the body of a cab-driver, it was shown that his horse became restive owing to the blowing of a horn by a passenger on an omnibus. The result was a collision, which upset the cab and killed the driver. A verdict of "Accidental death" was returned.

Extra Services Recognised.—The Metropolitan Asylums Board has granted gratuities of £25 to the Medical Superintendent, Matron, and Steward of the Deptford Hospital, in recognition of extra services rendered by them.

A Memorial Convalescent Home.—A special meeting has been held at the Wolverhampton and Staffordshire Hospital for the purpose of considering a scheme for the erection of a convalescent home for patients as a memorial to the late Mr. Henry Rogers. A brother of the deceased has promised a donation of £1000 and an annual subscription of fifteen guineas. Several other large contributions were announced, and a committee was appointed to carry out the project.

A Provincial Teacher.—The list for the next primary examination is, we understand, quite full—upwards of two hundred.

Gerald O.—The new office of Inspectors of Nuisances was created in 1872 by the Public Health Act of that year. It is possible that, as sanitary knowledge advances, candidates for this and some other of the posts created by the Act may be chosen by competitive examination, and certainly some knowledge of the practical duties of the office is desirable.

Public-houses at a Discount.—It appears that a large number of the Bradford publicans have suffered serious loss by the refusal of the magistrates to grant them music licences. A clause in the Bradford Water and Improvement Act, which came recently into force, provides that all publicans in the borough who wish to have music or singing in their establishments must take out a licence therefor, though previous to the passing of the Act this was not necessary. Of 300 applications for licences just made, only 172 were granted, and several of these went to the Bradford Coffee Taverns Company. It is stated that the property of the Company has thus been greatly enhanced in value; while that of the owners of public-houses, to whom music licences were refused, has correspondingly depreciated. The total depreciation is estimated at £150,000.

Pro Bono Publico.—The opposition to the proposal of the Brighton Town Council to purchase a public park has been unsuccessful. The Town Council last week confirmed their previous decision.

Once a Child.—The address of the Sea Shell Mission is 23, Tunstall-road, Brixton-road, S.W.

A Magistrate on a Medical Officer's Superannuation Allowance.—Touching Dr. Brushfield's retiring allowance of £700 a year, after eighteen years' service as the Superintending Physician to the County Lunatic Asylum, at Brookwood, a magistrate of the county, on the proposal being made, remarked, "it would cause the mouths of other medical superintendents throughout the country to water. Generals and Admirals, supposing they could reach that rank in eighteen years, would, no doubt, esteem themselves fortunate indeed if they could retire from Her Majesty's service with such an allowance as that which Dr. Brushfield will have out of the county funds."

A Pattern Patient.—A physician, much attached to his profession and his own skill, during his attendance on a man of letters, observing that the patient was very punctual in taking all his medicines and following his rules, exclaimed in the pride of his heart, "Ah, my dear sir, now you deserve to be ill!"

The Hygiene Exhibition, Berlin.—The Committee have decided to institute a competition for designs for a model theatre. As prizes for the three best solutions of the problem, they offer a total sum of 8000 marks. The designs are to be sent in not later than midday, August 5, 1882. The condition to be fulfilled on the model theatre are described in the programme.

Noxious Emanations in Dwelling-Houses.—Dr. Sedgwick Saunders, Medical Officer of Health for the City, has drawn attention in a lengthened report on the diffusion of noxious emanations from sewers into dwelling-houses and offices in the City, to the great danger of the public health.

A Sanitary Protection Society for Glasgow.—An institution is about to be established in this city, having for its object the providing its members with such supervision as shall insure the proper sanitary condition of their own dwellings, and to advise them as to the best means of remedying defects in the houses of the poorer classes in which they are interested. A similar association in Edinburgh, which has been in existence for about five years with increasing prosperity, has gained the confidence and appreciation of a large number of the community, and has given rise to the formation of like associations in London.

Shanklin, Isle of Wight.—A local surgeon writes, in reference to reports of the prevalence of typhoid fever and diphtheria in Shanklin, that there is not a single case of infectious disease there at present, and that the last six months have been the healthiest he has known there during the past ten years.

Mortality at Accrington.—The Medical Officer of Health has reported to the Town Council that out of nineteen deaths of persons over sixty years of age during the past month, ten exceeded seventy years, four were above eighty years, and five from seventy-two to eighty—in fact, old people made up one-third of the deaths.

Concerning a Coroner.—It is reported that a memorial was presented to the Surrey magistrates at the last quarterly meeting from certain inhabitants of Camberwell, complaining of delay on the part of Mr. Carter, the Coroner, in holding an inquest on the body of the late organist of St. Peter's Church, Dulwich, and that some material witnesses in the case had not been called; also, that the Coroner's mode of conducting the inquiry had been such as to give great annoyance and offence to the friends of the deceased. The magistrates suggested that the memorialists be recommended to address their complaints to the Home Secretary or the Lord Chancellor.

Heat in Australia.—A correspondent, writing from Stapleford, near Cambridge, South Australia, states:—"On Tuesday, January 17, the thermometer was registered at 114° in the shade."

"Charity."—Lord Ebrington's Bill proposes to abolish the system of interment by the roadside of persons found by the coroners and juries *felo de se*, and directs that such persons shall be buried in the churchyard or other burial-ground of the parish in which his remains are found, and in any of the ways prescribed by the Burial Laws Amendment Act.

Total Abstainers.—The twentieth series of the Lambeth Baths meetings was brought to a close last week. During the season just ended, 176 meetings had been held, and 1300 pledges of total abstinence taken. Mr. S. Morley, M.P., remarked that it was with great thankfulness he learned that there were in that district hundreds of persons now leading sober and religious lives, who had been induced to abandon their former drunken habits by attending the meetings at the Lambeth Baths.

Natural History Encouragement.—Mr. E. Ray Lankester, who has been appointed to the Chair of Natural History in the University of Edinburgh, is the son of the late Dr. E. Lankester, who was Coroner for Middlesex; and, although only thirty-five years of age, has occupied a prominent place in the field of natural science.

An Italian March.—An Italian paper, published at Rome, gives the following proverbs or popular sayings about March:—"In March our blood mounts to the brain, and the statistics of sentimental loves register an increase of suicides. March also is the month of bronchitis and other diseases ending in *itis*; it is the resource of doctors, the delight of chemists. March is not alike two days together, hence it is called "mad."

J. Keith C.—The vacancy caused by the retirement of Professor Donaldson as a trustee of Sir John Soane's Museum has been filled by the election of Charles Spencer Perceval, LL.D., Treasurer.

COMMUNICATIONS have been received from—

Dr. WHITSON, Glasgow; THE SECRETARY OF THE HUNTERIAN SOCIETY, London; THE EDITOR OF THE "BRITISH MEDICAL JOURNAL," London; MESSRS. BURGONE, BURBIDGE, and Co., London; Dr. JOHN H. CLARKE, London; THE REGISTRAR-GENERAL, Edinburgh; Dr. B. JOY JEFFRIES, Boston, U.S.A.; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Mr. HOOPER, London; Mr. GEORGE R. JESSIE, Henbury; Dr. KIDD, London; Mr. WILLIAM HEY, Hounslow; THE SECRETARY OF THE ROYAL MEDICAL BENEVOLENT COLLEGE, Epsom; Dr. SCHUSTER, Vienna; THE SHORE DRAINAGE COMPANY, Eastbourne; THE PRESIDENT OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION; THE SECRETARY OF THE ROYAL INSTITUTION, London; THE METROPOLITAN ASYLUMS BOARD, London; Mr. SAMSON BARNETT, London; Dr. A. G. BLUMFIELD, Exeter; THE DIRECTORS OF THE NAVAL MEDICAL SUPPLEMENTAL FUND, Admiralty; Mr. WM. ELLIOTT PORTER, Lindfield, Sussex; Mr. J. CHATTO, London; Mr. ARTHUR LUCAS, London.

BOOKS, ETC., RECEIVED—

Intemperance, by John Abbey—Diagnosis of Uterine Anteversions and Anteversions, by Clifton E. Wing, M.D.—On Failure of Brain Power, by Julius Althaus, M.D.—The New Sydenham Society's Lexicon of Medicine and the Allied Sciences, part vi.—Intermittent Spinal

Paralysis of Malarial Origin, by V. P. Gibney, A.M., M.D.—The Etiology and Pathology of Dupuytren's Contraction of the Fingers, by W. W. Keen, M.D.—Ueber die Ausscheidung des Quecksilbers Während und nach Quecksilberkuren, von Dr. Schuster—Die Mercourseife (Savon napolitain), von Dr. Schuster—Magnetische Streiflichter, von Philipp Walburg Kramer—Transactions of the National Association for the Promotion of Social Science, 1881—Annual Report of the Vigilance Association—Sessional Proceedings of the National Association for the Promotion of Social Science—Report of the Port of London Sanitary Committee—John Howard's Winter's Journey—Homes and Farms in America, by George H. Everett, M.D.—Sur le Traitement Rationnel des Gastrites Chroniques Infectieuses, par M. le Docteur A. F. Eklund—Extraction of Cataract, by Hasket Derby, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Philadelphia Medical Times—Revista de Medicina—Central Express—Bombay Gazette, March 16—Australasian Medical Gazette—North Carolina Medical Journal—Boston Journal of Chemistry—Medical News—New York Medical Journal—Midland Medical Miscellany—Ciencias Médicas—Weekblad—Medical Temperance Journal—Leicester Weekly Post, April 8.

APPOINTMENTS FOR THE WEEK.

April 15. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

17. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. Edmund Owen will show an Infant who has been treated for Acute Suppuration in the Hip-Joint. Mr. Lund (of Manchester) will introduce a New Method of treating Simple Fracture of the Patella. Mr. Henry Morris, "On Ichthyosis and Cancer of the Tongue."

18. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Dr. E. B. Tylor, "On the History of Customs and Beliefs."

STATISTICAL SOCIETY, 7½ p.m. Monthly Meeting.

PATHOLOGICAL SOCIETY, 8½ p.m. Specimens: Mr. Eve—Cancer originating in Membranes of Brain; Calcareous Tumour in Brain; Camel's Lung with Filaria Sanguinis. Dr. J. M. Hobson—Malignant Lymphoma. Mr. Roger Williams—Calculus formed in a Shell. Dr. B. Fenwick—Intra-Thoracic Tumour. Mr. M. Baker—Two Cases of Prurigo of Hebra; Acneiform Keloid (living specimens). Mr. A. P. Gould—Lateral Asymmetry of Bones and Brain. Mr. Alban Doran—Papillary Cysts of the Ovary. Card Specimens: Dr. S. West—Defects in Valves of Heart; Obliteration of Coronary Artery, etc. Mr. Golding Bird—Aneurism from Palm of Hand. Mr. Eve—Perforating Ulcer of Foot. Dr. Lediard (of Carlisle)—1. Dislocation of Ankle; 2. Abscess in Fossa of Skull.

19. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

HUNTERIAN SOCIETY (London Institution) (Council Meeting, 7½ p.m.), 8 p.m. Dr. Dundas Grant, "On a Case of Myxoedema." Mr. C. J. Symonds, "On Acute Palmar Bursitis treated by Pressure." Dr. Hughlings-Jackson, "On Multiple Neuroses the Result of Syphilis." Mr. Gilbert, "On a Case of Neurotic Asthma."

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY (Council Meeting, 8 p.m.), 8½ p.m. Ordinary Meeting.

20. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m. ROYAL INSTITUTION, 3 p.m. Professor Dewar, "On the Metals."

21. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Professor Dewar "On the Researches of H. Ste. Claire Deville."

ORIGINAL LECTURES

THE CROONIAN LECTURES

ON

THE CLIMATE AND FEVERS OF INDIA.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., etc.

LECTURE I.—PART I.

AFTER a few introductory remarks, Sir Joseph said:—Let me remind you of some of the physical characters of the country and climate in which the fevers occur. Health and disease are so greatly influenced by the locality, nature of the soil, and its vegetation, the temperature and its fluctuations, the quantity and seasonal distribution of the rainfall, atmospheric and other meteorological changes,—which, indeed, are the key to the epidemic history,—that some reference to them seems a fitting introduction to the study of the fevers themselves; for, though this is true of all disease, it is peculiarly so of fever. You will, I trust, pardon me for inflicting on you some details, which I will make as brief as possible; they relate to a country and people whose extent and magnitude are but too imperfectly appreciated, and have an important bearing on the subject to be submitted to you.

This vast country, with every kind of climate, possessing lofty mountains, elevated table-lands, alluvial valleys, desert tracts, and plains; noble rivers, estuaries, extensive swamps, jungles, and magnificent forests; has characters that invest it with peculiar interest for those who desire to study the influences of geographical position, geological formation, production of soil and climate, on the development of man, and the origin and diffusion of disease.

As regards climate, India may be divided into three regions:—1. The Himalayan, which includes Bhotan, Nepal, Gurhwal, Cashmere, and Cabul. 2. Hindostan, which extends along the foot of the Himalayan range, and includes the alluvial plains of the great rivers Ganges and Indus, with their numerous tributaries, as far south as the Vindyah mountains. 3. Tropical India, or the Deccan, which consists of elevated table-lands, littoral plains intersected by numerous rivers, mountain ranges, extensive forests, and isolated hills.

There are three distinct seasons in India—the hot, the rainy, and the cold,—which vary in duration and times of setting in; the cold season extends from November to March, the hot from March to June or July, and the rainy season from that to October or November, these seasons being greatly influenced by the monsoons or periodic seasonal winds. The south-west monsoon, which commences with storms of thunder and wind, soon followed by the bursting of the rain on the Malabar coast in May, does not reach regions further north till later in the year; its force and influence, indeed, are well-nigh spent ere it passes the twenty-fifth parallel of north latitude. The Carnatic and the Coromandel coast, sheltered by the Western Ghâts, are dry when the west coast is deluged with rain.

In the north-west the rains begin towards the end of June, and fall in diminished quantity. Near the hills the rainfall increases; but in the Southern Punjab and in the Great Desert there is very little rain, in some parts none. There are tracts of country commencing in Sind almost rainless, or with a fall as low as two inches; whilst in the Khasia hills, on the north-east frontier, 600 inches fall in the year. Next to this, the Western Ghâts and coast of Tenasserim have the greatest fall; at Mahableshwar 250 to 300 inches, and on the Tenasserim coast 180 inches, fall yearly.

The amount of atmospheric humidity also varies greatly. Flat hot plains, like Sind, where there is little or no rain, have an atmosphere almost saturated with moisture; on some of the lower mountain ranges, in Bengal, and in many districts near the coast in Southern India, the air is also very damp. But on the elevated table-lands of the Deccan and Central India, and the hot sandy plains of North-west India,

a dry air blows like a furnace blast during the months of May and June.

The north-east monsoon commences in October, and is dry, except on the Coromandel coast, where it brings rain between October and December. Variable winds last till about June. About the end of May the south-west monsoon again sets in, bringing a few showers, known as the lesser rains, which precede the greater rains. In the hill-stations of Darjeeling, Mussoorie, Nainee-Tal, Murree, Simla, and generally in the elevated provinces of the lower ranges of the Himalayas, also at Ootacamund, Coonoor, Wellington, Mahableshwar, in the Neilgherries and Ghâts—stations at elevations of 5000 to 7000 feet—the climate is genial, the rainfall moderate, it is cool and healthy in summer, and almost as bracing in winter as Europe. These may perhaps become the sites of future colonisation, for it seems probable that there the European may thrive and continue to reproduce his race, which, it is said, would cease to exist in the plains after the third generation.

A glance at a rain map of India shows areas of rainfall of various degrees, of irregular form and extent.

Thus, though great part of the continent of India is amply supplied with rain, there are extensive regions where the normal quantity is so small that it is insufficient to produce the crops necessary for the support of the population, and where, without the aid of artificial irrigation, the land would be sterile. This is effected by reservoirs, canals, and wells.

The agricultural benefit derived from this system of irrigation is, no doubt, great, but it has disadvantages, for with the water there is generation of malaria and fever, to what extent I shall presently show.

Another point to which I would refer very briefly is the influence of the rainfall on the growth of forests, and their effects on climate. There is reason to believe that some of the desert plains of India were at one time covered with trees; when they were so, the climate was less rigorous in its extreme heat than it is now.

The population of India, according to the last census, of February, 1881, is 252,541,210; the males appear to exceed the females by about one-fiftieth. Notwithstanding all checks, it has increased about 12,250,000 since the census of 1872, at the rate of $6\frac{1}{2}$ per cent.—except in British territory in Bombay, in Mysore and Madras, where there is a decrease of from 20 to 2 per cent., owing to famine and its consequences. The census of 1872 was, roughly, 239,750,000.

Hindoos and persons of Hindoo origin	149,130,185
Mohammedans and persons of Mohammedan origin	40,227,552
Asiatics (not natives of India)	540,989
Of mixed races	108,402
British	75,734
Other Europeans	8,000
Europeans (unspecified)	30,453
Americans, Africans, Australians	6,961
Other specified non-Asiatics	434,772

To which must be added the residents in feudatory States.

The average of the whole population gives about 162 per square mile; but in the British it is twice as dense as in the feudatory States, the number of persons per square mile varying considerably in different provinces. (a)

The people of India represent four great classes—

1. The non-Aryan, composed of Turanian and Dravidian or Scythic stock—the aborigines, so-called, and their descendants, amounting roughly to about eighteen millions.
2. The Aryan, represented by the high-caste Hindoos, Brahmins, and Rajpoots; about sixteen millions.
3. The great mixed population, commonly known as Hindoos, grown out of admixture of Aryan and non-Aryan elements; about one hundred and ten millions.
4. The Mohammedan, Semitic races, who invaded India from the north and north-west, about forty-one millions; and to these must be added the Eurasians, 108,402, and the European races who now rule India, 121,148. I cannot stay to trace the early history of these races, but, as regards their distribution, may just say that the Himalayas are occupied chiefly by the descendants of the Turanian stock, the plains

(a) In Bengal it was 387; in Bombay, 131; in Baroda, 454 per square mile; whereas some native States in the Central Provinces had only 36 to the same area. Many causes, no doubt, continue to explain these differences.

of Hindustan by the Aryan race, the table-land of the Deccan by a mixture of Aryan and Scythic or Dravidian races.

The Europeans and Eurasians are distributed over the whole continent.

Among this diversity of races there is equal diversity in physical characters. A Norwegian does not differ more widely from a Neapolitan than a Sikh or a Pathan from a Bengali; or the powerful warlike Rajpoot of the North from the peasant of Southern India. In mental and physical attributes there is close analogy; and, corresponding with the difference of climate, locality, and habits, they evince different capacities for enduring or resisting disease; some, as I shall show, having a peculiar power of resisting malaria.

With regard to their habits and food, the Mohammedans, Sikhs, some of the lower castes of Hindoos, and the aboriginal races, eat a mixed diet, including animal food, and are often robust, powerful people; many are in military service. The higher caste Hindoos subsist mainly on farinaceous food, such as wheat, rice, millet, and other similar grains, supplemented by pulse (dhal, a sort of pea), with milk, ghee, vegetables, and fish—occasionally the flesh of the goat or pigeon. Those who inhabit Northern India are powerful men, and from them the army is largely recruited.

Among the Europeans and Eurasians there is, I think, a tendency to eat more animal food and to drink more alcohol than are absolutely required, though in both respects they are more judicious than in past years. The natives of all classes are, as a general rule, temperate as regards stimulants; though some races, such as the Sikhs, the low-caste Hindoos, and the aboriginal races, drink freely. The use of tobacco, hemp, betel, and even opium—the latter especially in malarious districts—is very prevalent; opium, however, is much less used than among the Chinese.

On the whole, the natives of India are moderate and abstemious as regards food and stimulants—rather under than overfed, especially among the lower classes; and therefore more prone than the European to the asthenic condition in disease. As to clothing and habitation, these are of the simplest kind; the dress for the most part is of cotton, which in northern regions is supplemented by warmer materials. The dwelling of the ordinary native is generally a hut; among a large proportion of the people, built so near the ground and so ill-ventilated that miasmata play a great part as a disease-cause among the people. The lodging of the European is, as a general rule, good; sanitary precautions are duly observed, and the houses, barracks, clothing, food, and occupations of the British resident and soldier are so well ordered and carefully supervised as to leave little to desire. When this is taken into consideration, together with the fact that the soldiers are young, selected, and healthy, their diseases may be taken as a test of the real operation of malaria uncomplicated by other causes.

The habits and social conditions of a large proportion of the native people are prejudicial; early marriages, and sexual excesses and abuse, play an important part in sapping the vital force. The effects of impoverished health and vitality, and of the diseases that result from imperfect nutrition, have been painfully manifested in the results of the famines that of late years have ravaged large districts and checked population; whilst the unusual prevalence of malaria is shown in the character of the fevers and bowel complaints which destroy or deteriorate millions, making the native suffer more than the European.

Let me now speak of the extent to which fever prevails, and some of the reasons why it does so. Official records afford proof that it causes sickness and mortality which is hardly credible, and in some years almost challenges comparison with the Black Death which ravaged Europe in the fourteenth century and destroyed a fourth part of the whole population. The registered deaths from all causes in India in the year 1879 were 4,975,042.

Cholera accounting for	270,552
Small-pox accounting for	194,708
Bowel complaints accounting for	250,173
Fevers accounting for (out of a population of 187,105,833)	3,564,035

Civil Population, Fever Deaths.

1877	2,504,493
1878	3,247,371
1879	3,564,035

or thirteen times as much as cholera; thought it may probably fairly be estimated that not more than 50 per cent. of these deaths are due to endemic fevers. In the case of certain classes subject to registration, the figures are reliable; those relating to the general population are probably less trustworthy, but still sufficiently accurate to give a tolerably correct idea of the prevalence of disease and extent of mortality.

Let us look at the statistics of fever prevalence as illustrated by the sanitary reports and returns of hospitals in Calcutta.

The mortality from "fevers" in Calcutta has been during six years—

1875	5,328	1878	6,186
1876	4,361	1879	4,796
1877	5,151	1880	3,797

Clarke says that 80,000 natives and 15,000 Europeans died in 1770 from fever in the city of Calcutta.

The British army in India in 1879 numbered 57,810 men. Of these 51,959 suffered from fever, with a mortality of 387. The native army, of 130,011 men, had 122,375 cases of fever, with 756 deaths. The gaol population, of 117,680 persons, had 73,484 cases of fever, with 1306 deaths. But 1879 was an unusually unhealthy year; epidemic fevers of a malarial type were prevalent and fatal. In some districts, during and after the close of the rains and beginning of the cold season, the mortality was very high. In Bolundshur and Allyghur the deaths rose to about 113 per 1000 of population, the mortality from all causes being but little that of in excess of that of fever alone.

The population of Bengal, under registration, in 1880 was 59,890,237; about 4 per cent. located in towns, 96 per cent. in country and villages. The deaths registered in the whole province were—

Cholera	39,643
Small-pox	22,953
Fevers	689,605
Bowel complaints	44,969
Injuries	22,339
All other causes	103,124

Total registered deaths 922,633

Fevers destroyed nearly three times as many as all other death-causes put together!

In the Bombay Presidency in 1880 the annual mortality from fevers averaged 193,508 during a period of fourteen years; but in 1880 the deaths were 246,779, or 15·21 per 1000 of the population. For every fatal case of cholera there were 360 deaths from fever.

The seasonal prevalence shows how cold and variable temperatures affect the etiology of these fevers. The contrasted mortality between that of the hot and dry, and the rainy and damp seasons shows the effects of added moisture on the amount of fatality.

The thirteenth annual report of the Sanitary Commissioner of the North-west Provinces, for the year ending December 31, 1880, contains much information in respect of the prevalence of fever, the causes of malaria, and the influence of irrigation on fevers. These provinces include the pestilential Terai, the Doab, and irrigated area, which was scarcely less unhealthy.

The population of Oude and the North-west Provinces was 44,107,061 in the census of 1881.

Of the chief death-causes in 1880, about twenty-three out of every twenty-nine were due to fever. Nearly a million of people (987,220) died in 1880 of malarial diseases. The liability to fever here seems to have been increased by other predisposing causes, the most important being under-feeding during the famine; but as this was not the case with the entire population, and as they were not all badly clothed and housed, though all suffered, it is evident that there were other causes in operation.

The Sanitary Commissioner's Report for 1879 shows that the general causes which influenced the public health in fever localities were undrained ground into which canal water had been led, and rainfall added to the already water-logged subsoil. In 1880 food became cheaper, and except in certain districts there was less rain. In 1879, during the great scarcity of food, the fever death-rate was 37·82 per 1000; in 1880 it fell with increase of food to 23·11 per 1000, which was still above the five years' average of 20·91 per 1000.

The total annual deaths from fever taken through the scarcity period were—

1877 . . . 574,722	1879 . . . 1,616,108
1878 . . . 982,117	1880 . . . 987,220

The fundamental cause of the great loss of life from fever was increased predisposition from scarcity of food, cold, damp, and alterations of temperature in the latter half of the year, and dampness of soil the result of irrigation throwing more water into the subsoil than was needed by growing crops. This last must have acted as a serious predisposing cause.

The Chief Engineer was of opinion that the fever is *not* due to irrigation, but to great diurnal range of temperature, chills, and imperfect feeding. He says: "Without the great diurnal range, canal irrigation will not produce malarial fever"; but he admits that under these climatic influences it may do so, especially in the winter months, and thinks that better clothing and food would protect the people. But we know that these fevers occur irrespective of changes of temperature, though, no doubt, they have much influence in re-exciting it in those who have previously suffered, but not *de novo*. Fever occurs in every month of the year, though more in some seasons than others. With the excessive mortality in irrigation districts, the conclusion is inevitable that the true cause is stagnant subsoil water. The remedy for all this is better drainage, whilst no more water should be used than is required for the crops.

The general unsanitary conditions which prevail everywhere at present, and were well described so long ago as 1768 by Sir J. Pringle (in chapter ii. of his "Diseases of the Army"), but which we hope gradually to ameliorate by sanitary work and by a more enlightened intelligence on the part of the people, are also among the predisposing causes which influence the severity of fevers.

Such is the state of prevalence of the diseases of which I propose to speak. The subject is of great interest, and is worthy of study by the physician who has to treat them, or the sanitary officer who brings all the resources of science to his aid in preventing or mitigating them.

With this brief introduction, I pass on to consider the proper subject of this lecture, the fevers themselves, but first of malaria.

THE TEN LARGEST TOWNS OF FRANCE.—According to the census of 1881, the following towns have more than 100,000 inhabitants:—Paris, 2,225,910; Lyons, 372,887; Marseilles, 357,530; Bordeaux, 220,955; Lille, 177,943; Toulouse, 136,627; Nantes, 121,965; St. Etienne, 120,120; Rouen, 104,721; Havre, 102,615.—*Lyon Méd.*, April 16.

QUESTION OF NOXIOUSNESS OF CEMETERIES.—A report has just been made to the Paris Municipal Council on the project of a great cemetery at Méry-sur-Oise for the interment of the dead of Paris. The report treats at great length the question of the insalubrity of cemeteries for the inhabitants in their vicinity, and the following are some of the resolutions arrived at by the committee:—1. There do not exist in cemeteries centres capable of producing special cryptogamic germs different from those that are found everywhere. 2. At depths varying from forty to eighty centimetres above the graves, whether recent or old, the air does not contain the slightest trace of sulphuretted hydrogen, ammonia, nor carbonic oxide, and the proportion of carbonic acid does not exceed the proportion found in the ordinary air of Paris or of the country. 3. The mortality is 2.64 per 100 in the communes, the cemeteries of which are situated beyond their limits, and 2.43 per cent. for the communes in the midst of which there are cemeteries. 4. Combustion is complete at the end of five years in a soil which is moderately permeable to air, and consequently there is no ground for believing the soil to be saturated with noxious matters. 5. Experiments may be adduced to show that healthy animals may be grazed with impunity on a soil under which have been buried at only slight depths animals that have died of *charbon* (these experiments, however, have been warmly contested). 6. In cemeteries and at the plain of Gennevilliers, near Paris (largely used for market gardening), the organic and ammoniacal substances contained in the waters covering the surface, filtered through a substance of soil sufficiently deep and sufficiently aerated, become oxidised and transmuted into nitrates.

ABSTRACT OF

THE GULSTONIAN LECTURES

ON

PULMONARY CAVITIES: THEIR ORIGIN, GROWTH, AND REPAIR.

By WILLIAM EWART, M.D. Cantab., F.R.C.P.,

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LECTURE III.

THE doctrine of the curability of pulmonary excavation is comparatively young: although Hippocrates had noticed the beneficial effects of the rupture of pulmonary abscesses into the bronchi, and founded upon this discovery a method of treatment by succussion. To Laennec belongs the credit of having studied this subject anatomically. With him we are justified in considering the dwindling of cavities and the fibrous metamorphosis of their walls to be a step towards cure; and I have no hesitation in stating that a fair proportion of pulmonary cavities not resulting from acute phthisis undergo more or less of this reparative action. Roger and Boudet's observations on the frequency of concretions and scars in the lungs (present, according to them, in four-fifths of the autopsies performed on subjects beyond seventy years of age) give us a high idea both of the prevalence of cavities and the frequency of their complete obsolescence. More recently, Heitler, (a) from a study of the post-mortem registers of the "Pathologisch-Anatomische Anstalt" at Vienna for a period of ten years, has collected 780 instances of the healing of tubercular lesions, among which he mentions several cases of more or less complete cicatrization of cavities; and he admits the curability even of large caverns, provided the latter be strictly confined to the upper lobe.

But the opposite side of the question is supported by weighty authorities. By Andral the alleged remnants of an ancient phthisis were viewed with some scepticism; they failed to convince Louis, who says that he never found at the apices those masses of membrane with dilated bronchial ramifications terminating in them which Laennec records as cicatrices of tuberculous cavities. Dr. Walshe alludes to the subject in very guarded terms as follows:—"If on a small scale cavities may probably cohere by their opposite walls, of the cicatrization of a large excavation I have in vain looked for an example; and, without meaning to assert the sheer impossibility of the event, I must maintain it to rank among the mirabilia of morbid anatomy." (b) If for no other reasons, such specimens are probably rare owing to the long interval of life which may succeed the disease. On the other hand, the array of clinical evidence in favour of the healing of vomicae is imposing. The number of cases in which cavities cease to give signs of their presence is very large. But an absence of the physical signs of a cavity does not of necessity imply completed cicatrization. It is usual to find after death that the cavity is rather collapsed than obliterated, and that in a strict sense healing has not been accomplished. I freely confess that, after careful consideration, my conclusions do not materially differ from those of Dr. Walshe.

Cavities are never at a standstill, but must either grow or decrease. The degree and the mode of the reparative changes within them are mainly governed by the following factors:—(1) Their size and number; (2) their situation; (3) the facilities for contraction; (4) the facilities for compensatory hypertrophy. A vicarious development of the spongy tissue is not only seen in cases of recovery, but among the fatal cases, in all those where the disease runs a chronic course. Upon cavities the beneficial influence of this compensation is two-fold: it acts indirectly by improving the

(a) "Ueber die Spontan Heilung der Lungen Schwindsucht," Anzeiger der K. K. Gesellschaft der Aerzte in Wien, 3 Juni, 1880.

(b) "Practical Treatise on Diseases of the Lung," fourth edition, page 470.

general condition of the system; and by its gentle and sustained pressure it mechanically assists their contraction.

Thanks to this secondary expansion, the damaged organ, even after extreme excavation, may reconquer almost the whole of the thoracic space allotted to it. But in the majority of cases the work of compensation devolves upon the healthy lung. Of this unilateral hypertrophy, the specimen which I have placed on the table is a striking illustration. When opened after death, the chest in this case presented for inspection anteriorly, as far as the left axillary border, nothing beyond right lung and heart, the left lung being entirely hidden from view. Had the comparatively healthy right lung been tied down by adhesions, such a remarkable degree of vicarious development would have been obviously impossible. We are reminded by this specimen not only of the value of compensatory hypertrophy, but also of the importance which attaches to the presence or to the absence of pleural adhesions.

From practical surgery we learn that the healing of large tracts of tissue is only possible at the cost of considerable contraction. As applied to pulmonary excavations the term "contraction" is clearly a figurative expression. Strictly speaking, cavities cannot originate, but can only suffer, contraction. They are entirely dependent for any alteration in their shape upon external agencies, and, above all, upon the condition of the tissue by which they are surrounded. A zone of unexpanded lung-tissue is habitually observed at the periphery of pneumonic excavations, being the outcome partly of the pneumonia and partly of the softening. All pneumonia implies relative fulness of the inflamed air-cells and imperfect expansion of the neighbouring alveoli. But the process of excavation itself is the chief cause of the alveolar collapse to which I have alluded. Softening invariably leads to an interruption of the air-supply over a corresponding region, whether from ulceration of the bronchioles, from their inflammatory occlusion, or from tubercular deposit within them.

The zone of compressed lung constitutes in itself an important factor in the subsequent contraction, owing to the elastic elements which its tissue abundantly contains; but sooner or later fibrosis is set up in the condensed tissue, and a fibrous contraction is substituted for the elastic forces natural to the pulmonary structures. The formation of fibrous tissue around cavities is greatly assisted, whenever the cavity is superficial, by the existence of pleural adhesions. The supply of fibrous tissue from this source is not subject to any limitation; indeed, exuberance of fibrous growth may in its turn become a danger, inasmuch as it opposes the constriction of cavities under expiratory efforts, and the voiding of their contents by the agency of cough.

The best results due to the contractility of fibroid tissue are seen in the thin walls of cavities situated at a distance from the pleura, in the midst of healthy lung-tissue. Here the contraction of the fibrous elements receives material assistance from the pressure of the adjoining spongy substance, provided the cavity membrane, although free from rigidity, be sufficiently strong to resist expansion under the weight of the atmosphere. These conditions are often combined in the cavities which result from the sudden discharge of the products of softening into the bronchus. Relieved from internal pressure, the elastic and fibrous constituents of the investing layer contract spontaneously.

The influence which atmospheric pressure may exert in aiding or in opposing this contraction deserves to be briefly discussed. If an ordinary cavity, which I will suppose to possess a patent bronchus, could be imagined to be connected on all sides by means of some unyielding substance with the parietes of the thorax, traction would be exerted around it equal to the inspiratory expansion of the chest. Let the connexion be established by means of spongy tissue, by nature remarkably yielding; then not only will the outward traction mentioned above be removed from the cavity, but some degree of pressure will be exerted upon its outer wall by the expanding alveoli.

I am aware that the compressing force which I have described is very fractional, and that its importance must be measured by its continuous action. The bronchial orifice, which I have supposed to be patent, is, however, very frequently occupied with secretion, more readily allowing the egress than the entrance of air. In such a case the deep inspiration which precedes muscular strain, or the effort of

coughing, is directly utilised against the outer wall of the cavity. The relations of the common cavity, situated near the surface, are not so favourable to contraction; the pleural adhesions, which are seldom absent, restrict vicarious expansion around it, whilst encroachment from the opposite lung rarely exercises any lateral pressure upon its walls. Contraction in these cases is rendered possible by two circumstances which are usually associated—(1) falling-in of the thoracic parietes, and (2) shrinking of the lung within the thorax.

Uniform flattening of one side of the thorax may occur, and is sometimes traceable to excavation; but the local depression limited to the seat of excavation is undoubtedly a more common change. The mechanism of its production is somewhat complicated. If we bear in mind the remarkable power of recoil exhibited by any part of the thorax, after the application of temporary pressure, it is evident that the permanent falling-in to which I have alluded must have been of very gradual origin. The first impression is made prior to excavation. Ribs overlying the inflamed districts become dissociated from the concerted movements of the intercostal muscles by a species of local paralysis, and ultimately they remain motionless. At this time the other ribs are actively at work, and become more and more independent of the paralysed ribs, whilst the costo-sternal joint of the latter, having acquired considerable looseness, permits the sternum to follow without hindrance the movements of the healthy ribs. The preliminary steps which I have described having paved the way for local retrocession, the thorax becomes gradually depressed with the progress of excavation.

The collapse of the thorax has its final limits in the approximation of the ribs. When contact has occurred between the latter, any further retraction of cavities must entirely depend upon the fibrous shrinking of the lung itself. In fibroid phthisis this shrinking attains a remarkable degree. At the base, owing to the yielding nature of the diaphragm, a retraction of the lung and a contraction of the cavities are specially favoured; and the most usual result of the shrinking of large cavities in this situation is a shortening of the thoracic space, in consequence of which the position of the liver, the stomach, the spleen, and other viscera, may suffer appreciable alterations.

Neither the shrinking to which I have alluded nor the secondary hypertrophy can occur without some disturbance of the normal relations of the visceral and of the parietal surfaces of the pleura; and, conversely, rigid pleural adhesions are detrimental, not only as opposing contraction of the cavities, but as preventing the free expansion of the healthy tissue and its gradual insinuation between the pleura and the wall of the cavity. In the diagrams and specimens before you, the extent to which the spongy tissue may expand is strikingly shown by the length of the band connecting the retracting cavity with the parietal pleura. In these cases adhesion was strictly limited to the point at which the cavity originally approached the surface. Extensive adhesions around this point would have rendered such a result impossible. It follows that the existence of adhesions over the healthy parts of the lung forms a most important element in our prognosis. Especially important is the question as to adhesion of the inferior surface of the lung. It will presently be shown that adhesions to the diaphragm invariably restrict the area of the base, and consequently curtail the breathing surface of the lung.

In compensation for these great disadvantages, the only benefit accruing from pleural adhesions, in respect of the contraction of cavities, is the growth of fibrous tissue, to which I have incidentally referred. The remarkable thickness sometimes acquired by the pleural membrane enables the lung to shrink to a smaller size, by filling up superfluous space, or it may ultimately exert a directly constricting pressure. In the ordinary apex-excavations the thickest pad of fibrous tissue occurs in the axillary region, coinciding with the greatest convexity of the ribs. Fibrous tissue is not the only substance employed by nature as a stop-gap. Very frequently fat is produced in appreciable quantities in the retro-pleural tissue along the internal surface of the ribs. The retraction of the fibrosed lung readily draws inwards the intercostal spaces. A similar in-bending of the rib is clearly impossible; but the visceral layer retreats from the periosteum, and the interval between pleura and bone is filled by fat.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ON THE ELECTRICAL TREATMENT OF PARALYSIS, AND ITS RATIONALE.

By A. DE WATTEVILLE.

WHEN we think of the astonishment which must have been caused by the discovery that electrical discharges produced powerful contractions, even in muscles whose energy had been lying dormant for years, we do not wonder that the first observers imagined they had discovered an agent which would prove all-powerful in the cure of paralysis. Little was known of the pathological changes which are at the root of the symptom. The symptom itself was considered as a disease, an entity *per se*, and treated as such. Now and then a brilliant success, real or apparent—obtained, for instance, in a hysterical or other self-recoverable case of paralysis—assisted in keeping up the enthusiasm of the devotees. Other cases less successful were then, as they are now by the promoters of new plans of treatment, explained away: the cure would have been complete if only the patient had begun earlier or followed longer the course of electrical applications which had done such wonders in another instance. Of the earliest attempts to cure paralysis by means of electricity we need say little here. The Roman physicians seem to have used electrical fishes for the purpose, and the same practice has been related of certain uncivilised tribes. In modern times the invention of the three chief sources of electricity—the friction machine, the chemical couple, and the induction coil(a)—was the signal in each instance of an era of electro-therapeutical activity.

The first era—that of the friction machine and Leyden-jar—occupied the second half of the last century. Galvani's and Volta's great discoveries, and the intimate way in which their researches were bound up with the subject of animal electricity, gave a remarkable impetus to the physiological and therapeutical applications of the current named after them. But the unbounded expectations raised by the first enthusiasm, and the unsatisfactory nature of the batteries then used, soon created a general discouragement; little was done during the period which elapsed until about 1840, when Daniell's depolarising element opened a new horizon. Du Bois-Reymond's celebrated discoveries invited a multitude of workers in that direction; and galvano-therapeutics once more flourished in the hands of Remak and his followers. In the meanwhile Faraday had published his discoveries; and the remarkable simplicity of the induction apparatus, and its efficacy in producing muscular contraction, soon gave it in the hands of Duchenne a prominent place in medical practice.

The object of the present paper is not to attempt a new physiological explanation of the curative influence—real or supposed—of electricity in the various pathological conditions where its application is commonly believed to be beneficial. We are far from the time when such an explanation will be possible; and the hopeless futility of the efforts hitherto made in that direction, by appealing to ill-understood electrotonic effects of the current in nerves (and nerve-centres!), and ambiguous vaso-motor phenomena, is too apparent not to serve us as a warning.(b) I intend here to confine myself to the task of defining our present knowledge—or rather ignorance—concerning the value of electricity as an “anti-paralytic” agent.

The causes which produce paralysis or paresis may be localised in any part of the neuro-motor apparatus—brain, cord, peripheral nerves. Hence the common subdivisions

(a) Much confusion still prevails among English writers with reference to the nomenclature of this subject. The friction-machine yields *franklinic* electricity (also called static as opposed to dynamic—i.e., to galvanic and faradic). The chemical couple or cell yields *galvanic* electricity (also called voltaic; the constant current; sometimes the continuous, or even the primary, current). The induction coil yields *faradic* electricity (also called the induced current, the interrupted current; the extra or primary current of the inducing coil, the secondary current of the inducted coil). The three terms—franklinism, galvanism, and faradism, with their derivatives, galvanise, faradise, faradisation, etc.—deserve to replace all the other appellations in electro-therapeutics.

(b) See the writer's papers on “Unipolar Stimulation,” and “An Electro-therapeutical Superstition,” in *Brain*, 1880-1881. See also Waller and De Watteville, *Proceedings of the Royal Society*, February, 1882; and *Neurologisches Centralblatt*, April, 1882.

of central (cerebral and spinal) and peripheral paralyses. But for our purpose it is necessary to carry the subdivision a little farther, and to distinguish between cortical, columnal, and cornual paralyses in the central group. Of the cortical I need say nothing here, as they have attracted so much attention of late. I include under the heading “columnal,” paralyses due to lesions of the white fibres between the cerebral and spinal (including the bulbar) grey matter, cerebral white matter, corpora striata, peduncles, anterior pyramids, lateral column. By cornual I designate paralyses arising from disease of the spinal (and bulbar) motor centres. Peripheral paralyses are those which depend upon injury or disease—functional or organic—of the roots, trunks and branches, or endings of the cerebro-spinal nerves.

Viewing the subject from another standpoint, we must establish another—and, for us, very important—classification of paralyses, viz., into simple and atrophic.(c) The latter include all (probably) those of cornual, and many of those of peripheral, origin; and are, as the name implies, characterised by certain degenerative changes depending upon an interference with the “trophic” influence of the cord upon healthy muscles. The former group comprises all the paralyses (the cortical, columnal, and some of the peripheral kind) in which the degenerative muscular atrophy is not observed.

Paralyses may again be grouped according to the nature of the pathological process which produced them. Thus they may be due to some mechanical injury or pressure at any point of the motor centres or paths—such as depressed fractures of the skull, hæmorrhage into the corpus striatum tearing up or pressing upon the fibres, various injuries or diseases of the bony case of the centres, thickening of the periosteum and meninges, tumours, and many other such conditions. The peripheral nerves are, of course, still more exposed to mechanical injuries of all descriptions. A frequent cause of peripheral (the so-called “rheumatic”) paralysis which falls under this head is perineuritis, which acts by external pressure upon the nerve-fibres, through an effusion into the inelastic sheath.

Inflammation, acute or chronic (the sclerosis of the centres, the neuritis of the peripheral nerves), whether idiopathic or derived by contiguity from the surrounding inflamed tissue, is at the root of an important class of paralyses. Many “toxic” paralyses, and those following acute diseases, may possibly fall under this head.

Again, the abnormal condition of the bloodvessels and circulation is a frequent cause of paralysis. Not to speak of the doubtful importance of vaso-motor spasm or relaxation, we have under this head thrombosis, embolism, arterial degeneration (frequently syphilitic), which usually form the first stage of softening of the cerebral district served by the diseased vessel.

Lastly, there is the group of paralyses of “functional” origin, which apparently depend upon some molecular alteration of nerve-matter, or upon certain inhibitory phenomena, such as may be at the root of hysterical paralysis. The once wide group of “reflex” paralyses—now so much restricted, and even rejected altogether by some competent writers—whether from some morbid process in a distant organ, or from pain in the limb paralysed, would naturally fall under its head. Again, there often remains, after certain pathological changes in the nerves or their neighbourhood, a kind of “functional” incompetence of the fibres to convey volitional impulses: these paralyses from want of re-innervation, by sympathy or implication, display their non-organic origin by the ease with which they yield to electricity, and often raise false hopes as to the real powers of this agent.

Now, in the rational treatment of paralysis, as of every other morbid condition, the first indication arises from the nature of the pathological process underlying the phenomena. Thus in traumatic, toxic, or specific paralyses the first duty of the physician is clear, and the appropriate measures are to be taken before, or concurrently with, electrification. But it must not be forgotten that electricity, we have reason to believe, answers in other cases to the causal as well as the symptomatic indications. This, as

(c) These two groups correspond to Marshall Hall's *cerebral* and *spinal* paralyses respectively. These terms mean simply that in the first group the volitional impulses only are interfered with; in the second, the spinal or trophic influence is abolished also. In the first we have hemiplegia, lateral sclerosis, paraplegia (from transverse myelitis); in the second, infantile paralysis, bulbar paralysis, facial paralysis (from severe cold), etc.

well as the fact that our agent is not one, but many, differing as it does according to its mode of production and methods of application in its physiological effects, complicates the problem of its "antiparalytic" value. The main conditions to be taken in consideration are:—

a. The physical differences between the galvanic and faradic currents, or in a more general way the continuity or discontinuity of electrical applications (involving the question of the therapeutical value of artificial muscular contractions), and the different polar or directional influences ascribed to the current.

b. The therapeutical difference between treatment *in loco morbi* and *in loco symptomatis*.

c. The influence of the current directly upon the morbid process of the nerve-tissue itself (inflammation, malnutrition, molecular disturbance, etc.); or upon the extraneous cause interfering with the function of the nerve (removal of effusions, etc.); or, again, upon the diseased portion of the nervous path through the restoration of the less affected elements that may subsist in it.

d. Finally, the value of electricity in the atrophy which plays such an important part in many forms of paralysis.

We shall not in this paper attempt to discuss the whole question, but, confining ourselves to the second and third headings, first consider the possible explanation of the antiparalytic virtues of electricity applied *in loco morbi*.

There is no doubt that electricity exerts, when properly used, a stimulating effect on the processes of nutrition. It acts as a tonic to the healthy structures, and promotes natural growth. Puppies electrified daily increase in size more rapidly than they would otherwise. It also favours the restoration of healthy nutrition in tissues whose vitality is impaired; thus glands and other structures chronically inflamed are benefited by the electrical stimulus. We may, therefore, fairly ask the question whether galvanisation has any real direct influence on neuritis or sclerosis of the brain or cord? This is a doubtful point at present, yet in certain cases it would seem to have been used with a beneficial effect. This might, however, be explained partly by a direct influence, an arousing of the activity of fibres or cells not yet the seat of any change, but only functionally impaired by the proximity of the morbid process, the paralysis being reduced to the result of the actual anatomico-pathological changes, partly by a cutaneous reflex action comparable to that obtained by hydropathic procedures, and by the various methods of counter-irritation. The vaso-motor and other catalytical influences of the current have been invoked as sufficient to account for a possible modification of the nutrition of the tissues, or of the morbid process, but the small quantity of electricity usually circulating through the diseased organs makes such influences very problematical when the nerve-centres are the seat of the lesion; nor is it clear how slight temporary dilatations or constrictions of the cerebral, spinal, or other vessels could possess such an influence. Moreover, vaso-motor changes are more often secondary to the lesion than the reverse; even if we could correct them, therefore, we could not expect to modify that lesion. The same line of argument applies when the inflammatory process is only secondarily the cause of the paralysis—as, for instance, meningitis, where the pressure of the thickened membranes is the main cause of the loss of power. Again in perineuritis we have inflammation, effusion, pressure, and consequent paralysis. How does electricity act in these cases? Probably more by assisting nature in the process of absorption of morbid products, and by promoting the restoration of function in the nerve-tissue impaired by the pressure to which it has been submitted, than by any considerable action on the inflammatory process itself. When the pressure has been external, and not sufficient to disorganise the nerves, as in crutch-paralysis, it is evidently in the latter mode that electricity exerts its curative influence; and the same may be said of its action in the regenerative stage of the more severe traumatic paralyses. Here, however, it certainly hastens the process of cure by promoting the natural growth of new tissue as well as by stimulating its functional activity.

Where the paralysis is "functional," due to molecular changes in the nerves, to phenomena of inhibition or interference, or even to some very fine nutritive disturbance, it is easier, in a sense, to understand the action of electricity, which, being but a form of motion, a molecular vibration in the body which is said to conduct it may be assumed to

restore the disturbed molecular equilibrium. But it must be confessed that the very generality which makes this hypothesis acceptable takes away from it every practical value as an explanation. Hysteria offers an extensive field for the observation of such paralyses. Some, like the well-known aphonia, disappear readily under the influence of electricity (as, it must be allowed, of a sudden shock of any kind); whilst others—hysterical paraplegia, for instance—are very obstinate to every form of treatment. Among paralyses of the molecular group we must include some "rheumatic" paralyses (of the deltoid, for instance), in which since Duchenne, the current has been shown to act with the same marvellous efficacy as in many cases of simple neuralgia in which the accentuation of the symptoms notoriously bears no proportion to the depth of the lesion. The rapid return of voluntary motion in limbs or muscles which had remained profoundly paretical after injuries to nerves, tendons, or joints, long after the lesion had been healed, points to a want of innervation depending upon some slight molecular disturbance rather than to the persistence of any gross lesion. Similar instances may be observed in cases of lesion of the nerve-centres. There can be no doubt that a portion of the paralysis—after cerebral hæmorrhage, for instance—is often due to the "shock" received by the neighbouring fibres. These may remain in this state of functional paresis for a considerable time, even after the absorption of the clot. At any rate, I should prefer to explain on this hypothesis the rapid results of electrification in such cases rather than on the assumption of an influence of the current on the process of absorption, through the problematical virtue of problematical vaso-motor changes in the brain. (d) It is also, I believe, the "hyperæsthetic" condition of the brain-tissue itself, much more than the excitability of the vaso-motors, that makes too energetic electrification dangerous in recent cerebral hæmorrhage. We frequently find in syphilitic and other similar hemiplegias a residual paresis remain after the first therapeutical indications have been duly fulfilled. Here the rapid improvement occasionally noticed, even after the lapse of a considerable time, when electricity is applied, shows that the "re-innervation" had not proceeded *pari passu* with the recovery of the diseased tracts. Their dormant energies required to be called forth by the electrical stimulus.

(To be continued.)

A CASE OF MULTIPLE SARCOMATA.

By A. R. ANDERSON, M.R.C.S.,

Resident Surgeon, General Hospital, Nottingham.

THE following case appears to be of sufficient rarity and interest to make its clinical history worthy of publication. It is much to be regretted that the details of the pathological anatomy are wanting, as leave could not be obtained either to make a post-mortem examination or to remove a portion of one of the growths.

J. B., aged forty-three, was admitted under Dr. Ransom's care on May 3, 1880. He said that up to four months previously he had been in good health, and at that time he wrenched his shoulder at work, and soon after noticed a swelling on it, which was shortly followed by like swellings on the chest and head, the rapid increase of which, both in number and size, caused him to apply for admission into the hospital.

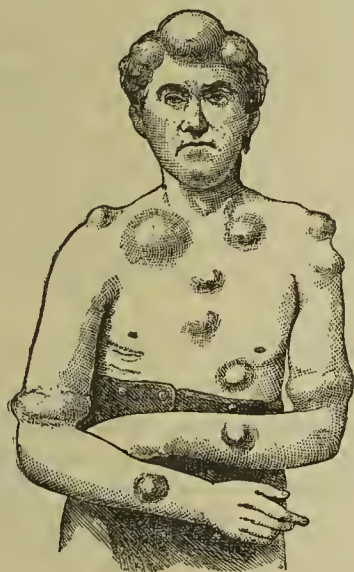
On examination he was found to have eight tumours—three of which were situated on the front of the chest, and five on the head. Those on the chest were placed one on either clavicle, the third over the upper part of the sternum. The one on the right clavicle was the first to appear; it lay over the inner third of the bone, and had existed for four months. It increased rapidly in size, and had at this time attained the dimensions of an orange, measuring three inches and a half along its greatest semi-circumference, and two inches and a quarter along its shortest. It was rounded, hard, painless when touched, and firmly connected with the subjacent bone. Over the sternal end of the left clavicle was a much smaller swelling, having the same characters, and measuring one inch by one inch. The third

(d) Cf. Löwenfeld, "Electrotherapie des Gehirns." The author's experimental results were obtained under conditions which deprive them of all practical value.

on the sternum was irregular in shape and flattened; it measured two inches by one inch.

Of those on the head, the largest was seated in the centre of the forehead, and was rounded, and quite soft and semi-fluctuating, especially in the centre, differing markedly in this respect from those on the thorax. Close to the lateral boundary of the forehead another tumour existed on either side. These were not more than a quarter the size of the previous one, but possessed the same general characters. The fourth was over the left parietal bone, and was quite small. The fifth and last of these growths lay near the apex of the lambdoidal suture, and had a somewhat remarkable history. Five weeks before his admission it was stated to have been the size of a pigeon's egg; since then it had diminished much in size, again increased, and again disappeared. Its site was, at the time of his admission, only marked by a soft boggy patch, about one inch and a quarter in diameter and very slightly elevated above the surrounding integument. The edges of the patch were firmer and gave the sensation of a ring. The subjacent bone felt firm and hard.

With regard to his general condition, he was fairly well developed, and had been muscular, but had lost flesh latterly. He ate and slept well, being free from pain. There was nothing in the family history bearing on the nature of his complaint. Was ordered to take a mixture containing ten-grain doses of iodide and bromide of potassium three times a day.



On June 1, whilst helping another patient into bed, and without making any undue muscular effort, his right humerus broke with a loud snap. A transverse fracture was found in the lower third of the bone, and the limb was put up on an angular splint. There had been no improvement up to this date in his condition; indeed, the growths had increased in size, and another had appeared over the left mastoid process. There was, however, no sign of any tumour at the seat of fracture.

June 19.—Fracture of the left humerus was caused to-day in the lower third of the bone by the very slight muscular effort employed in raising the corresponding hand to his head. He had been warned to be cautious in his movements, and had lifted his arm slowly and deliberately. There was no appearance of a new growth in this situation; but the left eye had become prominent and vision much impaired, clearly indicating one within the orbit.

He was now in a sad state of helplessness, and decided shortly to go home. He was discharged on June 26, and subsequently attended by Mr. Joseph Thompson, through whose courtesy I was enabled to watch the case to its termination. (The above woodcut, taken from a photograph, shows very well the position of the tumours on the forehead, front of the chest, and arms.)

After leaving the hospital the swellings increased enormously in size, and fresh ones appeared; at the same time he grew rapidly weaker, and shortly before death his condition was as follows:—

On the head, the tumour in the centre of the forehead was as large as a saucer, flattened on its surface, and raised four inches from the surrounding skin; the integument over it was thickened, almost horny, and pigmented, being of a dark brown colour; large veins were to be seen traversing

it. The forehead tumours on either side of this one were somewhat larger than when he went home, but had not increased in size so rapidly. Behind the left ear was a swelling as large as a hen's egg, and another of the same dimensions existed now over the posterior fontanelle; a third, rather smaller than these, was situated just above and behind the right ear. The left eyeball was protruded on to the cheek, and vision entirely lost. A red, sprouting, granulating mass projected here.

The tumours on the head had these characters:—They were not so distinctly circumscribed as those on the body; they were softer to the touch, semi-fluctuating in some parts, and had surfaces which were fairly smooth or only slightly tuberos; they were firmly fixed on subjacent parts, and could be handled without pain; neither the skin covering them nor the neighbouring lymphatic glands were involved.

On the front of the chest, five of these growths were situated. The largest lay partly in front of and partly below the right clavicle, and was the size of a cocoanut; a second was situated over the inner third of the left clavicle, a third over the centre of the upper part of the sternum, a fourth also in the middle line below this. All these were about half the size of the first-mentioned, and the fifth was larger; it occupied a spot immediately below the left nipple. They were all firm and hard, with distinctly circumscribed outlines and nodular surfaces, painless when touched, and firmly fixed. There were no glandular enlargements or skin implication. On the right acromion was a single tumour, and a corresponding one lay on the left, with a third just below it connected with the humerus—all the size of eggs, hard, nodular, and immovable. There was not the least attempt at union in the fracture either of the right humerus or of the left, and in this situation there existed now, on each side, a swelling as large as an orange, firm, fixed, and evidently growing from the interior of the bone; and lastly, in the middle of the extensor surface of each forearm was another tumour, having the same characters as the above and being of almost the same dimensions.

He was in a state of extreme emaciation, and on the sacrum was a bed-sore. He complained much of weariness and general soreness, he said from lying, and required to be constantly moved. Pains in both knees were causing him much trouble, but there were no signs of any tumours there. Percussion over the thorax and abdomen did not detect any abnormal dulness, and there was no enlargement of the abdominal viscera. He gradually sank, and died on the morning of Christmas-day, 1880. His intellectual faculties remained clear to the end.

Remarks.—The following points seem to be worthy of notice in connexion with the above history. In the first place, the disease affected exclusively the osseous system, and of the nineteen growths which existed on this man's body at the time of death, seventeen were apparently connected either with the periosteum or the surface of the bone, whilst those affecting the lower third of either humerus undoubtedly originated in their interior, probably in the medullary tissue, and were examples of central sarcomata. And here it may be remarked that central sarcoma of the long bones affects, as a rule, their epiphyses; and in the humerus it is said to be quite rare in the shaft, affecting here by preference the upper epiphysis of the bone. Mr. Butlin speaks of this in his lectures on "The Relations of Sarcoma to Carcinoma," and gives a table of sixty-three cases of central sarcoma of bone; in three of these the humerus was affected, and in each instance in the above-mentioned situation.

Then as regards the locality of the tumours, it will be noticed that while the upper half of the body, roughly speaking, was studded with these growths, the lower half, the glands, skin, and various internal organs, remained perfectly free; and this is the more remarkable, bearing in mind the fact that the dissemination of the sarcomata is affected by means of the blood.

It was further interesting to observe the tendency to symmetry which existed; this was strongly exhibited in the case of all the growths except the one in the left orbit, the one under the left nipple, and the third just below the left acromion. These were, so to speak, odd ones, and lacked fellows on the opposite side. Finally, it is difficult to explain the coming and going of the occipital tumour, which ultimately became well developed and increased in size up to the time of death, having the same characters as the

others; that it actually did so there can be no doubt, as the man was under Dr. Ransom's observation at the time, and this occurrence especially attracted his attention.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

INFIRMARY FOR CHILDREN, LIVERPOOL.

TWO CASES OF ATAXIA IN CHILDREN.

[Reported by Mr. P. DAVIDSON, M.B., House-Surgeon.]

Case 1.—*Ataxic Condition accompanying Emaciation—Recovery.*

(Under the care of Dr. OXLEY.)

M. B., a girl, aged nine years, was admitted on October 26, 1881. Six weeks previous to admission her parents noticed one morning that her right arm jerked about. In a day or two the jerkings affected her other limbs as well, so that she lost control of them. Previous to this she had enjoyed good health, although her appetite had been poor. No cause could be assigned for the illness.

On admission she was very thin, and had an anxious appearance. Her temperature was 101° ; pulse 152; respirations 18. As long as she lay passive in bed, no twitchings of the muscles or jerkings of the limbs were noticed; but as soon as she sought to move any of her limbs, the movements were of an exaggerated and uncontrolled character, resembling those of chorea. With difficulty could she grasp anything, and could only hold it for a few seconds; she could not stand, and, when placed on her feet to walk, her legs were flung about, and frequently drawn up in extreme flexion; mastication and swallowing were performed with difficulty, from the exaggerated action of the muscles employed; fluids were apt to pass into the windpipe; speech was thick and indistinct; the urine was passed in bed; the motions of the bowels were under control; patellar and skin reflexes were exaggerated; sensibility to touch, pain, and electricity was normal; the fundus of the eye was healthy in appearance; the girl was intelligent, and not at all emotional. She was treated with iodide and bromide of potassium, and was put on a nourishing diet. In a few days there was considerable improvement; the various movements of the limbs were much more controlled.

November 11.—She could walk with assistance, and without much jerking of the legs.

28th.—She could almost walk without assistance, and the choreic movements were only slightly noticeable.

December 3.—She could walk quite straight without assistance, and with perfect control of all her muscles.

Between November 15 and December 15 she gained six pounds in weight.

15th.—Discharged.

Case 2.—*Ataxic Condition following Rheumatic Fever—Recovery.*

(Under the care of Dr. POLLARD.)

J. G., a boy, aged seven years, was admitted on December 14, 1881. He had had an attack of rheumatic fever ten weeks previously, and eight weeks ago he had lost his speech entirely as well as the use of his limbs. His previous health had been good. On admission he was pale and thin. While resting passively in bed there was no jerking or motion of the limbs. Any motion which he attempted was of an exaggerated and violent character, like the movements of chorea. When asked to grasp one's finger he could hardly catch hold of it for the violent jerkings of the arm, and when caught he could not retain his grasp. When asked to draw up or push down his legs, those motions were uncontrolled, the legs being thrown about. He could not sit up in bed. If put on the floor to walk, his legs were flung about and frequently drawn up spasmodically, thighs on abdomen. When asked to put out his tongue it rolled about in a peculiar manner. If asked a question he nodded or shook his head in answer. He had control over the passage of urine and of the motions of the bowels. Tendon reflex was not exaggerated. Sensibility

to touch, pain, and electricity was normal. The fundus of the eye was normal. The boy was intelligent, but very emotional, crying on the slightest cause, the cry lasting only a very short time. There was a soft systolic murmur to be heard at the apex of the heart. Patient was treated with nux vomica and nitric acid internally, and with the interrupted current applied to the legs. He was put on a full diet.

December 23.—The movements of the limbs are much more controlled. He can pull up and push down his legs pretty steadily. There is less control of the right than of the left side. Begins to say one or two words with effort.

December 30.—Can pronounce his own name distinctly, and begins to speak a little to the other boys. Can sit up in bed and move his legs steadily.

January 9.—Can walk a little when supported, but cannot stand by himself.

20th.—Is able to walk about without any assistance. He drags the right leg a little. He can stand with his eyes shut. Is gaining flesh rapidly.

February 4.—Now he has perfect control over all movements of the limbs. Speech perfect. No cardiac murmur to be heard.

Since January 6 has gained 10 lbs.

February 14.—Discharged.

Remarks (by Dr. Pollard).—The ataxy in this case was of a peculiar kind. It was not altogether choreic in character, and there were no irregular muscular twitchings when no movement was being attempted; the case in this respect differing from one of chorea. Neither were the ataxic movements similar to those of disseminated sclerosis, being free from the rhythmical character which is observed in this latter condition. I regarded the case as one of "functional" paresis and ataxia, and it had some characters which reminded one a good deal of certain hysterical manifestations. These curious nervous symptoms appear to have come on as sequelæ of an attack of acute rheumatism, but they were not such as to suggest that they resulted from embolism or other gross lesion.

PROFESSOR ZUCKERKANDL.—Dr. Emil Zuckerkandl, who was Extraordinary Professor of Anatomy in the Vienna Faculty, has been appointed Ordinary Professor of the same branch of science to the Faculty of Medicine of Graz, and also Director of the Anatomical Institute. Through this appointment Graz acquires a teaching power of the first rank, while Vienna undergoes a sensible loss. Prof. Zuckerkandl, in spite of his early age, is one of the most gifted teachers of his branch of science; and his didactic capabilities are as striking as is the fertility of his technical knowledge. He is not only a complete master of the entire province of anatomy, but also of all branches of science having connexion with it. Graz is to be congratulated on the acquisition it has made.—*Wien. Med. Woch.*, March 18.

POPULATION OF PARIS.—This was 1,988,806 according to the census of 1876, and 2,225,910 according to the census of 1881, having increased, therefore, by 237,104 in the five years, or 11.92 per 100 inhabitants. This gives an annual increase of 2.38 per cent., while between 1872 and 1876 it had only been 1.64. The increase is, therefore, a notable one, but there have been still more considerable augmentations during 1831-36, 1841-46, and especially between 1851-56, when the annual increase amounted to 4.10 per cent. The arrondissement of St. Denis, in the Department of the Seine, increased in population during the five years from 237,850 to 303,814—i.e., 65,964, or 27 inhabitants per 100, or an annual increase of 5.55, or more than double that of the population of Paris properly so-called. Some of the communes have increased in extraordinary proportions—by a third or more,—showing the increasing taste of the inhabitants (like that of Londoners, we may observe) for the villageature. In the other arrondissement of Scéaux the population has increased from 184,191 to 218,086, or only 33,895 additional inhabitants, corresponding to an annual increase of 2.69, which, although far inferior to that of St. Denis, is still larger than that of Paris itself. The total results of the entire department of the Seine are an increase from 2,410,347 to 2,747,810, being an absolute increase of 336,963, and an annual increase of 2.79 per cent.—*Journal de la Soc. de Statistique*, March.

resisting the brown staining of "vesuvin"; and even the leprosy-bacillus will take on a certain colouring (devised by Weigert) which the bacillus of tubercle resists. Dr. Koch had therefore a means of picking out the bacillus of tubercle from among the most puzzling surroundings. Curiously enough, it was in the interior of giant-cells—still destined, evidently, to play a great rôle in tubercle—that the bacillus was oftenest found, and in slowly progressing cases of tuberculosis the bacillus occurred nowhere but in the substance of those multinuclear elements; they are found as small blue rods, sometimes only one, sometimes several, up to twenty, in the midst of a prevailing field of brown. Not every group of giant-cells, and not every giant-cell in a group, would show the bacilli; many giant-cells are quite free of them, but these are the old cells which had once held bacilli also, and had somehow got rid of them. The bacilli are enclosed by the giant-cell probably as foreign bodies, just as those multinuclear masses are found to enclose vegetable fibres and the ova of strongylus. When the tuberculous eruption "has passed its highest point," the bacilli become fewer, and may even disappear altogether. They are extremely numerous in cavities in the lung; "the well-known small caseous friable masses in the interior of cavities consist almost entirely of bacilli," which are often covered with spores. In the larger kind of cavities they are mixed with other bacteria; but, under the above-described staining procedure, *the tubercle-bacteria alone are blue, while all the others are brown.* It is right to state, however, that the bacillus of tubercle may sometimes be observed without the blue staining. More than two hundred guinea-pigs and rabbits were successfully inoculated with various kinds of tubercle in the usual way; the bacilli were not missed in the tuberculous formations of a single one of these animals. Such being the uniformity of their occurrence, why, asks Dr. Koch, have they not been seen before? The answer is that they are very minute, and often very few, and that only the particular colour-test suffices to detect their presence.

Thus far, Dr. Koch has proved that a bacillus co-exists with tubercle, its most universal *locale* being the interior of giant-cells. Next follows the proof that the bacillus is not a mere epiphenomenon of tubercle, but its cause. This is accomplished by the now familiar method of obtaining the pure bacillus, free from all suspicion of animal particles clinging to it, by means of successive "cultivations." We at length reach the bacillus pure and simple, carrying with it nothing but its own inherent qualities, be they vicious or be they neutral; a sufficient amount of bacillus is introduced into an animal, and the effect is watched. Klebs, Schüller, Toussaint, and Aufrecht have each cultivated a bacterium from tuberculous matter, and have set up tuberculosis by injecting it; but they cultivated the organism in an albuminous fluid, which became turbid in about three days after the piece of tuberculous substance (containing the tubercle-bacteria) had been deposited in it.

Dr. Koch, on the other hand, found that his bacillus was "troublesome" to cultivate in fluid, and he did not persevere with that method, obvious though its advantages are. He took the blood-plasma of the ox or sheep in a test-tube, and after carefully sterilising it by repeated applications of heat, he boiled it to a coagulum, at the same time inclining the test-tube so that the coagulum might cover a considerable surface. The clot was a transparent, yellowish, firm jelly, and it was on that "nutrient soil" that he proposed to "grow" the tubercle-bacillus without the intervention of moisture. How did he gain his end? He took from the dead body—usually from the lung of the ape or of man—a piece of tuberculous substance, using great care to have his instruments disinfected; the fragment was then washed

several times in corrosive sublimate, the outer layers were removed, and from the interior there was taken a portion "into which it was to be expected that no bacteria of putrefaction had penetrated." The cotton-wool plug was then removed for a moment from the test-tube containing the layer of coagulated plasma; the piece of tubercle was introduced, broken up, and scattered over the surface; the plug was then replaced, and the test-tube deposited in an oven kept at a uniform temperature of 37° to 38° Cent. During the first week nothing happened; if any activity did show itself, it was a sign that the bacteria of putrefaction were present, and Dr. Koch—we think mistakenly—did not persevere with that experiment. Usually after the tenth day there became visible to the naked eye, on the dry surface of the coagulum, "a number of very small points, or dry-looking scales, which surrounded the pieces of tubercle that had been laid out, in circuits more or less wide, according to the extent of breaking up and dispersion of the tubercle fragments at the time when they were sown." The sentence is an important one, and we regret that we cannot make it look more explicit in the translation. Were those dry scales other than some of the scattered fragments of tubercle? The point is not discussed by Dr. Koch, and yet it seems to require elucidation. However, the dry scales (or crusts, as they sometimes were) are taken to be colonies of the bacillus. After a few weeks' exposure to dry heat, the scales or crusts cease to enlarge. The cotton-wool plug is then withdrawn, and they are transferred on glowing platinum wire to another test-tube similarly prepared; they are broken up and scattered over the surface, and the plug replaced. "After an equal interval, dry scaly masses again appear, become confluent, and cover more or less of the coagulum surface, according as the seed was widely scattered"; and so, from test-tube to test-tube, is the "culture" continued for as many as a dozen times, and through a period extending up to one hundred and fifty days. It is not stated wherein the dry scales and crusts of the later cultivations differed in quality from those of the earlier. With those bacillus-cultures (dry scales or crusts), numerous animals were inoculated, either under the skin, or into the peritoneal cavity, or into the anterior chamber of the eye, or into a vein. In upwards of thirty of the cases the substance was taken (and cultivated) from the tuberculous lung of the ape; pieces of human phthisical lung furnished seventeen of the cultures; and the "pearl disease" of the ox furnished the material for ten. Without a single exception, all the inoculated animals (chiefly rabbits and guinea-pigs) acquired tuberculosis of the lungs, liver, spleen, and other organs; and the tubercles had the structure of the original tubercle, including giant-cells, which latter contained bacilli.

Dr. Koch claims that these remarkable results, which have long been known to follow inoculation with even minute quantities of tuberculous substance, are due to the introduction of the bacillus *per se*. Perhaps it is that we have not the full details before us, but we confess to a certain difficulty about the crusted or scaly pieces of substance with which he obtained those results. What was their relation to the fragments of tuberculous lung scattered over the prepared surface? What became of those fragments? We venture to think that these questions require an answer before we admit that the pure bacillus, and nothing but the bacillus, was the means of producing the tuberculosis. The only novelty in Dr. Koch's practical suggestions relates to the sputum of phthisical patients. Even the dried sputum will produce tubercle when inoculated; and sufficient care has not hitherto been taken to reduce the expectorations of the phthisical to a condition in which they can do no harm.

THE WHITE-LEAD MANUFACTURE.

ABOUT three weeks ago Mr. Robert Collier held an inquest on the body of a woman named Hannah Macarthy, aged twenty-seven, who had died in Shoreditch Infirmary from meningitis, the result of lead-poisoning. The facts of the case, which have been somewhat incorrectly reported, were these:—Ten months ago, after having been but a few months, or a year at most, at the factory, this woman was discharged as being unusually susceptible to the influence of lead. Last month she applied for readmission, pleading that she had had no work whatever since she left, and was taken on by the foreman, in the absence of the principals. Next day she was seized with an epileptiform fit, and sent to the Shoreditch Infirmary, where she died after seven days, during which delirium and convulsions alternated with lucid intervals. Post-mortem examination revealed intense inflammation of the meninges, fibrinous flocculi, and copious serous effusion in the arachnoid.

At the inquest, Mr. Daniel Forbes, the Resident Medical Officer, stated that during the last few months he had admitted no less than sixteen cases of wrist-drop from the same factory—indeed such cases were rarely absent from the wards. He had also, during the time he had been in office, had several such cases of meningitis, all with one exception ending fatally.

Many people from these works are sent in by the district surgeons as cases of "rheumatism," the cause of the vague pains and nervous symptoms not being recognised, though the blue line on the gums is usually sufficient to indicate the true nature of the case. We have seen several of the patients who are still in the Infirmary, making good progress towards recovery from the paralysis, under treatment by iodide of potassium.

The number of cases coming under the care of the parish medical officers is to be accounted for by the fact that the sufferers belong for the most part to the class of what we may call casual labourers—persons of either sex, but mostly women, who take to the work, sometimes at one factory and sometimes at another, as a temporary resource, rarely remaining for many months at a time. In the hop-picking season there will not be a dozen women on the premises; and when all other employment fails there will be as many as fifty or sixty. Roaming and irregular in their habits, ill-fed and intemperate, they are not only more susceptible to the influence of the poison, but are, like others of their class, careless of personal ablution and neglectful of the most obvious precautions. The wages of the women, who are mostly casuals, are two shillings a day; of the men (about twenty in number) twenty-one to twenty-six shillings a week, but these may earn a shilling a day more by overtime.

The death of Hannah Macarthy has caused some excitement in certain quarters. The coroner's officer had asserted that at the time of his serving the notices he had seen women in one of the rooms of the factory eating bread-and-butter on which lead-powder was to be seen. A "powerful" article appeared in one of the daily papers, describing in terrible language the various forms of disease and death which followed the wretched workers. Questions were asked in Parliament on the subject, and two inspectors were sent from the Home Office to report on the works.

From some of the patients at the Infirmary we received accounts, which we could not but hope were exaggerated, of the gross neglect, on the part of the proprietors, of ordinary precautions; of lavatories as often without soap as with, and towels changed but once a week. Wishing to learn the truth, we obtained permission to visit and inspect the factory for ourselves; and we must say that the result of our visit has been satisfactory. There are lavatories for men and

women, with wooden troughs and water laid on; towels changed, we were told, thrice a week; several nail-brushes and tubs of soft soap. These have been substituted for the pieces of common hard soap, which the women used to carry away. The workers have their meals in a large, clean, well-ventilated room or shed adjoining, but quite distinct from the factory, where, besides seats, tables, fire, copper, etc., they have the services of a woman engaged by the proprietors solely as cook and attendant on the female operatives.

The difference, however, between the casual and the old hands was very marked; several of the latter, one of them a woman, had been over twenty years at the work, and many six, ten, or more. Yet they seemed as strong and healthy as others of the same age and class. But then they were clean, and none more so than the man who presided at the grinding mill. This used to be considered the most injurious stage of the manufacture, but, being now done under water, the dust is less than it was formerly.

Any of the workpeople, and not, as has been reported, only those who have been there two years, may, on application to one of the principals, have the advice of a medical man living near without cost to themselves. This gentleman assured us that those who come to him rarely suffer from the severer forms of lead-poisoning; his cases are those of colic, and sometimes commencing paralysis of a slight degree, and quickly yielding to treatment; but then these are the sober, steady men. The intemperate, improvident ones, to whom a week's illness means starvation, go, of course, to the parish, and it is these that furnish the severer examples of lead-poisoning, for which their own habits are mainly responsible.

The greater susceptibility, not merely of those who *will* neglect personal cleanliness, but also of such as are given to drink, was noticed more than fifty years ago by Thackrah; but there appears also to be a difference explicable only by the hypothesis of idiosyncrasy. In Thackrah's time workers in white-lead rarely lived more than twenty years, and a third of this time they were laid up with colic or palsy; but even then he knew one factory where, through the rigid enforcement of cleanliness, medical aid had not been required for some years. In this no doubt lies the whole secret: employers may and do provide the opportunities for cleanliness, but they can neither enforce nor personally superintend each individual's ablutions. We did, however, suggest the provision of a hot-water supply to the lavatories, which we were assured is to be made. Respirators have been served out to the men at the mill and elsewhere, but they do not take to them kindly.

An important question is, out of all this, How does the lead enter the system? Of the three possible means of access—the skin, the air-passages, and the stomach—we are inclined to think that the last is the most important, and that much of what is attributed to inhalation is really caused by swallowing, even by the more cleanly, the fine dust entering the mouth, and not merely, as in the case of careless persons, the lead adhering to the fingers when eating.

THE WEEK.

TOPICS OF THE DAY.

FROM all the reports which have come to hand on the subject of the medical arrangements for the Volunteer field-day at Portsmouth on Easter Monday, everything appears to have been carried out in the most satisfactory manner. The Principal Medical Officer of the Army Medical Department at Portsmouth, Surgeon-General Woolfryes, an officer whose latest experience was gathered during the campaign in

Zululand, had prepared for every possible emergency by establishing two field-hospitals on the ground, with a base-hospital at Hilsea. Further, a medical officer, accompanied by an officer and a non-commissioned officer of the Army Hospital Corps, was detailed for each railway-station, and they were amply provided with medical comforts and all necessary appliances. The Volunteer bearer-company, formed on the model of the regular service, and organised to act in the rear of the fighting line, should have numbered one hundred men; at the last moment, however, its strength did not exceed sixty, a circumstance to be accounted for from the fact that many commanding officers were loth to lose the military services of their trained bearers in the ranks. This Volunteer bearer-company was commanded by Surgeon-Major W. Johnston, of the Army Medical Department; Lieutenant MacClure, of the London Scottish Volunteers, acting as adjutant. The company was about equally divided between the attacking and opposing forces, and during the day did good service in removing several men who were suffering from exhaustion, or who were attacked by slight sunstroke. The casualties were fortunately only few in number, some forty in all, and the following night not a single case was left in charge of the military medical officers. A few men were attacked with colic through eating tinned lobster in bad condition; a few suffered from sore feet; and there were occasional cases of sprains and contusions, and exhaustion produced by over-fatigue. The only really serious case was that of a man of the 3rd Middlesex Rifles, who broke his leg in climbing a wire fence.

A sub-committee of the London Sanitary Committee, appointed to inquire into the condition of the river Thames, in their report to December 31 last, state that "during the first week of July, 1881, the temperature being unusually high, the river became exceedingly foul. The water was of dark colour, and the smell therefrom intolerable. The Port Sanitary Authority, however, had done all in its power to prevent pollution. Many closets and foul outfalls had been closed or diverted by its action, but, unhappily, it had been decided that it had no power under the Rivers Pollution Act, 1876, the only Act which could really strengthen its hands. The Medical Officer of Health of the Limehouse district adds that his Board had determined to make a clean sweep of all foul outfalls into the river in their district, and that a new sewer had been constructed for this purpose, which had already diverted a large number." The Committee state that they regard this "as a great step in the right direction, for there can be no question that if all the foul outfalls from districts above Barking and Crossness were diverted, the state of the river would be to a certain extent improved. But there would then still remain the outfalls of the Metropolitan Board of Works—undoubtedly the principal causes of the present lamentable state of affairs."

The Committee of the Provident Medical Association have announced that a meeting in support of the movement for establishing dispensaries in various parts of the metropolis will be held at the Mansion House on the 26th inst., under the presidency of the Lord Mayor. It will be remembered that the Association was founded two years ago, to diminish the number of applicants to the out-door departments of the London hospitals, and to enable every member to select from the staff attached to his dispensary a medical practitioner, who might thus in time become acquainted with the constitutions and complaints of the subscriber and his family, being thus enabled to advise as to the prevention, as well as the cure, of disease. Since the Association commenced operations eight dispensaries have been established on this footing, at which upwards of 8000 persons are entitled to the advantages of medical treatment. The London friendly

societies have accepted the principles of the Association, and some of their branches have joined the movement; but the promoters are of opinion that as the members of these friendly societies are scattered all over London, their active adoption of the arrangement must be dependent on its extension to meet their wants. The buildings required for the dispensaries, and all the other necessary preliminary expenses, have hitherto been provided by a subsidiary joint-company on a commercial basis; but as objections are often felt to taking shares, even with a limited liability, a separate fund has now been opened for donations in aid of the necessary preliminary expenses of the Association.

At a recent meeting of the Slough Petty Sessions, the Local Board were summoned by the Waterworks Company for unlawfully using water otherwise than for the purposes agreed upon. The case was of considerable interest to provincial corporate bodies. The Slough Water Company furnishes the supply for watering the streets; but the Local Board had used it on several occasions for flushing their sewers, and as that had been done without first obtaining permission, the complainants sought for the infliction of a penalty of £5, as provided by their Acts, for the punishment of the offence. On the part of the Local Board it was admitted that 10,000 gallons of water, for which the maximum charge was 6d. per thousand gallons, had been used for flushing purposes; but it was contended that the Company having been made acquainted with the facts, the matter could only be looked upon as a debt, more especially as they had sent in a bill for £5 last Michaelmas for three months' water-supply so used. The magistrates, after a lengthened hearing, showed their consideration for both parties by convicting the Board and fining them 50s., but acquitting them of any fraudulent intent.

According to the monthly return for February last of the Registrar-General for Scotland, there were registered in the eight principal towns there the births of 3273 children and the deaths of 2160 persons. Allowing for the increase of population, the latter number is 544 under the average for this particular month for the last ten years. The mortality was at the annual rate of 18 deaths per 1000 persons in Dundee and in Aberdeen, 19 in Edinburgh, in Greenock, and in Leith, 24 in Glasgow and Paisley, and 27 in Perth. Of the total number of deaths, 850, or 39·4 per cent., were those of children under five years of age. The miasmatic order of the zymotic class of diseases proved fatal to 318 persons, constituting 14·7 per cent. of the whole mortality; but this rate was exceeded in Glasgow, Leith, and Perth. Whooping-cough was the most fatal epidemic, having caused 76 deaths, or 3·5 per cent. of the total mortality. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 457, or 21·2 per cent. Those from consumption alone numbered 251, or 11·6 per cent. Two males and four females were aged ninety years and upwards, the eldest of whom was a widow aged ninety-four years.

On Saturday last a deputation from the Port of London Sanitary Sub-Committee visited Aylesbury to inspect the A B C process of the sewage works of the Native Guano Company. The deputation was met at the works by the Chairman of the Company and other officers, and Mr. Siller proceeded to explain the process, commencing at the point where the sewage reaches the works from the town of Aylesbury, and is at once intermixed at the outfall with an admixture of charcoal, blood, and clay, to the point in the channel where a mixture of sulphate of alumina is thrown into the stream. At this point samples of the sewage under treatment were taken, and minutely examined by Dr. Collingridge, who expressed himself satisfied with the

manner in which the sewage matter was separated from the effluent. The deputation was next shown the preparations, prior to their admixture, of blood, charcoal, and clay, and sulphate of alumina, for casting into the stream of sewage-matter, and were finally conducted to the point where the effluent reached the river; here specimens of fish were shown living and thriving in the water.

A statement has appeared, to the effect that, in pursuance of a circular issued by the War Office in 1881, militia surgeons are now called upon to resign their appointments on reaching the age of sixty-five years, but without pension or allowance of any description. Two applications have been made by the Parliamentary Committee of the British Medical Association to the present Secretary of State for War on behalf of the militia surgeons, asking for an interview to lay their claims for compensation before him, but it is asserted that no attention has been paid to these communications.

It is officially announced that enrolled members of the Volunteer force who may be injured on duty, and thereby rendered incapable of resuming their occupations, will in future be allowed a gratuity not exceeding 3s. 6d. per day, and for a period not longer than six months; but the allowance will not be given while the patient may be in a military hospital.

The twenty-first festival dinner of the Royal Medical Benevolent College was held on the evening of the 19th inst. at the Langham Hotel. In the enforced absence, through serious illness, of the President of the Royal College of Surgeons, the chair was taken by Mr. John Marshall, one of the Vice-Presidents. The objects and the excellences of the Epsom College are so well known to our readers that we need say little more than that the claims and needs of the institution were eloquently set forth by the Chairman, who also pointed out that several absolutely necessary sanitary additions, repairs, and other works had lately caused a great strain on the funds, and thereby made it necessary for him to appeal, with more than usual earnestness and urgency, to the kindness and benevolence of the public.

FEVER AND SMALL-POX IN THE METROPOLIS.

THE usual fortnightly meeting of the Metropolitan Asylums Board was held on Saturday last, Mr. E. Galsworthy presiding. The business transacted calls for no special comment, but the reports from the committees managing the infectious hospitals showed that during the fortnight fever cases had somewhat increased, while small-pox cases continued to show a decrease. At the end of the previous fortnight the number of fever cases under treatment was 246, while the number now returned was 275. At Stockwell, since the last report, 36 had been admitted, 8 had died, and 13 had been discharged, leaving 116 under treatment. At Homerton, 51 had been admitted, 4 had died, and 27 had been discharged, leaving 159 under treatment. In regard to small-pox, 87 cases in all had been admitted in the fortnight, 13 had died, and 96 had been discharged, leaving 344 under treatment, as against 366 a fortnight ago.

THE CHARING-CROSS HOSPITAL DINNER.

ON Wednesday evening a goodly array of the supporters of this most valuable institution assembled at Willis's Rooms; the President, His Royal Highness the Duke of Edinburgh, being in the chair. In every way the dinner was a success, not the least being that the Duke has promised to formally open the new and excellent school buildings in May. There is one comfort with regard to such a dinner as this at Willis's—you can get something to eat and to drink which does not insure bilious vomiting next morning.

SIR ERASMUS WILSON.

THE profession will be glad to be assured that the President of the Royal College of Surgeons, Sir Erasmus Wilson, is decidedly better, though it must probably be some time before he can resume the labours of his office and his profession. Sir Erasmus, who has suffered from a sharp attack of gastro-enteritis, has been assiduously attended by his friends Drs. Wilson Fox and R. Liveing, and has also had the advantage of the aid and advice of Sir William Jenner.

PRIMARY CANCER OF THE LUNGS.

AT the last meeting of the Pathological Society (April 18), Dr. Fenwick showed a specimen of malignant disease of the right lung: he considered it to be a cancer, but as no sufficient microscopical examination had been made, this question remained doubtful, and was referred to the Morbid Growths Committee for settlement. He referred to the rarity of primary cancer of the lung, and gave some interesting statistics on this point. If the now generally accepted embryological classification of cancer be true, there is no difficulty in accounting for primary cancer in the lung, since epiblastic elements largely contribute to its formation. Undoubted cases of primary cancer have been recorded from time to time; though, compared with some other organs, the lungs are remarkably exempt from this form of disease, despite the varying and almost constant irritations to which they are subject. During the discussion, Mr. Butlin referred to the dissemination of cancer by the inhalation of cancerous particles from a diseased tongue. This view has frequently been advanced, but the grounds for accepting such a method of inoculation or grafting do not appear to us sufficient. It is well known that all attempts to engraft cancer even on animals predisposed to the disease, such as female dogs and cats) have hitherto failed: thus, while it would be premature to deny the possibility of such a mode of infection, it seems somewhat hazardous at present to trace a causal connexion between lung and tongue cancer, such as the one just referred to, while there are other and more usual methods of accounting for its spread. Thus, the lymphatics about the tongue are numerous and are early implicated in disease of this organ. The blood into which the lymph is poured at the root of the neck after passing through the heart next circulates in the lung, and hence it is not difficult to understand the frequency with which these organs are affected with secondary deposits. There are still many interesting points to settle as to the histogenesis of cancer. For while the embryological doctrine of its origin holds good in a large proportion of the cases, yet a growth resembling true cancer is occasionally found in structures which are derived from the middle embryonic layer. Embryologists, it is true, are not agreed as to the exact origin of some organs; they would do well to study these moot points in the light of the pathological degenerations to which such organs (as the ovary and testis, for instance) are liable.

THE METROPOLITAN ASYLUMS HOSPITAL AT FULHAM.

THE Managers of the Metropolitan Asylums Board are naturally anxious to combat the impression that their Small-pox Hospital at Fulham is a source of danger to the surrounding district, and as the building in question has been rendered practically useless by the injunction obtained for limiting the patients to be received in it to residents in the immediate neighbourhood, advantage has been taken of the opportunity now afforded to exhibit its construction and capabilities to those interested in its retention as one of the metropolitan asylums. On Saturday last the general body of members of the Metropolitan Asylums Board, accompanied by medical experts and others, visited the

Asylum, and were conducted all over it by Dr. Bostock, C.B., the chairman of the Managing Committee. The Fulham Hospital was hastily prepared in 1877 for the reception of patients, when the Board was sorely pressed for accommodation, consequent upon the compulsory closing of the Hampstead Asylum through the adverse decision of the law courts. It was originally erected in the fields, and between the wards and the enclosing walls is an ample space of ground on all sides. On one side, since the erection of the Hospital, houses have been built to within about the same distance that houses in the Liverpool-road, Islington, approach on all sides the London Fever Hospital. Except at one corner, the walls of the Fulham Asylum are completely isolated, the railway on one side cutting them off from a cemetery, while on the second and third sides are wide open spaces. The Hospital is built on the pavilion principle, with ten separate pavilions, each of thirty beds, giving a space of 2000 cubic feet to each patient, with a central administrative block. The buildings stand upon six acres of ground, affording an acre to each fifty beds, and the spaces external to the pavilions are laid out as gardens. In hospitals of this character the cleansing is an especially important work, and outside the laundries are large disinfecting tanks, into which all the articles from the pavilion wards are thrown before being taken into the laundries. The pavilions are large and airy, and have the best means of ventilation and warming; besides cross ventilation by means of openings at the tops of the windows for very hot weather, a system has been adopted of shafts which admit air upwards, about two feet above the patients' heads, and in such a way that no draught can be felt. Dr. Bostock pointed out on a map that the districts from which patients might at the present time be received, under the conditions of the injunction, were only sparsely populated, and that therefore to keep the Hospital open, with its staff of eighty persons, was only to entail useless expense upon the ratepayers of the metropolis. The Asylum was recently visited by the Royal Commission now sitting on Hospitals for Infectious Diseases. Amongst the information afforded to the visitors on Saturday last, it does not appear that Dr. Bostock stated the actual distance of the Hospital from inhabited dwellings on each side of it—a point of the utmost importance in forming an opinion as to whether the position of the building, when filled with small-pox patients, is or is not likely to prove a source of danger to the surrounding population.

THE INTERNATIONAL PHARMACEUTICAL CONGRESS OF 1881.

THE Pharmaceutical Society of Great Britain has published a report of the proceedings of the Fifth International Pharmaceutical Congress, held in London under its auspices in August, 1881. It is explained in the outset that these meetings owe their origin to the conviction entertained by pharmacists throughout Europe, that the similarity of their requirements in regard to promoting the scientific and material interests of their class called for international deliberation as to the means suitable, as well as desirable and necessary, for effecting those objects. The first Congress was held at Brunswick in 1865, the second at Paris in 1867, the third at Vienna in 1869, and the fourth at St. Petersburg in 1874. One important subject which has been more or less discussed at every meeting is the desirability of preparing a universal codex, containing formulæ of potent medicines, for general adoption. By a resolution of the Congress which met in 1881, English was made the official language, but for the convenience of the delegates in reporting the discussions, each speech is given in the report in English, French, and German. We may add that Mr. Theophilus Redwood was the President of last year's Con-

gress, and that before separating it was decided to hold the next meeting at Brussels, in three years from that date, namely, in 1884.

THE PARIS WEEKLY RETURN.

THE number of deaths for the fourteenth week of 1882, terminating April 6, was 1337, and among these there were from typhoid fever 41, small-pox 15, measles 23, scarlatina 7, pertussis 5, diphtheria and croup 70, erysipelas 9, and puerperal infections 8. There were also 55 deaths from tubercular and acute meningitis, 252 from phthisis, 41 from acute bronchitis, 105 from pneumonia, 89 from infantile athrepsia (30 of the infants having been wholly or partially suckled), and 42 violent deaths (37 males and 5 females). The return of this week is higher than the mean of the preceding four weeks; and compared with the thirteenth week there is some diminution in measles (23 instead of 27) and erysipelas (9 instead of 11); but an increase in typhoid fever (41 in place of 36), diphtheria (70 instead of 68), and puerperal infections (8 instead of 2). In the hospitals there were admitted during the week 54 in place of 44 cases of small-pox, and 104 of typhoid instead of 98. In spite of the exceptionally genial temperature the mortality continues very high, but this is the result of the ordinary progress of organic affections, which especially prove fatal at this time of the year. The births for the week amounted to 1199, viz., 591 males (436 legitimate and 155 illegitimate) and 608 females (443 legitimate and 165 illegitimate): 116 infants were either born dead or died within twenty-four hours, viz., 74 males (57 legitimate and 17 illegitimate) and 42 females (30 legitimate and 12 illegitimate).

THE OBSTETRICAL SOCIETY OF LONDON.

AT the last meeting of the Obstetrical Society of London two cases were brought under its notice by Dr. Braithwaite, of Leeds, which raise questions of great gravity and difficulty. They were cases of unilateral oöphorectomy. In one an ovary was cut out for cardiac dyspnoea, which was assumed to be in some way conditioned or aggravated by the state of the ovary. In the other case the ovary was removed because it was painful. The unsatisfactory part of the cases is this, that in each of them the symptoms which were held to justify the operation were purely *subjective*. In the first case there was undoubtedly grave cardiac disease, quite enough to account for the dyspnoea. Nevertheless, it was held to depend partly on the ovary, because the patient said that her dyspnoea was relieved when she assumed certain extraordinary positions. No explanation was offered as to how the ovary should affect the dyspnoea, and it was expressly stated that pressure on the ovary did not affect the dyspnoea; nor was it shown how, even supposing that this might be the case, the positions in question should prevent its doing so; and—what seems to us a more important omission—there was no mention of any trouble having been taken to ascertain whether the facts were really as the patient said. Everyone knows that patients, especially women, tell us the most extraordinary tales as to the means which they find relieve their symptoms. It should be constantly in the mind of the gynaecologist, above all men, that the words of women are not always fact; and when we are asked to accept a most improbable theory, based solely on the words of one ailing woman, we must respectfully say that we suspend judgment until it is brought before us with some better evidence. The second case was one of the same kind: a woman in excellent health, who had suffered for years from pain described as “awful.” Now, a patient cannot suffer “awful” pain for years, and yet remain in good health. Pain of the kind which permits this does not, in our opinion,

deserve the adjective "awful." In this case the words of the patient were clearly not facts, and we respectfully think should not have been accepted as such. Of course there are morbid conditions of which pain is the sole symptom; and in them we are entirely dependent on the patient for our facts. In such we can arrive at correct impressions by comparing the statements of one patient with those of others. When we find an hysterical woman making statements at variance with general experience, the probability is that her statement is, to say the least, exaggerated.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE usual quarterly Court of Directors of the above Society was held on Wednesday, April 12, at 5 p.m., Mr. Charles Hawkins, Vice-President, in the chair. A letter was read from the President, Sir George Burrows, expressing his regret at not being able to attend the meeting. Dr. Pitman, Vice-President, proposed a resolution expressing the sympathy of the Court with their President on his recent severe domestic affliction, which was carried unanimously. Four new members were elected; the deaths of three were reported, as well as the resignation of another. Applications for grants were read from fifty-six widows, seven orphans, and three recipients of relief from the Copeland Fund, and it was resolved that a sum of £1126 should be distributed among them. Three fresh applications for relief from widows were read, and grants to them were made amounting to £55. The death of one widow was announced, and the marriage of another. The directors recommended that Dr. Bisset Hawkins should be elected, at the annual general meeting, a Vice-President, in the place of Dr. Billing, deceased; and that Dr. F. Weber, Dr. Burdon-Sanderson, John Sebastian Wilkinson, Esq., Walter Rivington, Esq., G. Carrick Steel, Esq., and Arthur Evershed, M.R.C.P., should be elected in the place of the six senior directors who retire. The annual general meeting was fixed to take place on May 17, at 5 p.m.

HEREDITARY LEAD-POISONING.

DR. B. RENNERT, of Frankfort, claims (*Archiv für Gynäkologie*, Bd. xviii., Heft 1, p. 109) to have noticed a peculiar form of hereditary lead-poisoning, in hydrocephalus or a disproportionate size of the head, but without signs of rickets or any special tendency to convulsions. His observations were made on eleven families with seventy-nine children among the inhabitants of a village in Hesse, where most of the population are employed in the glazing of pottery, and suffer largely from chronic lead-poisoning. Half the children died in the first few years of life, and the survivors suffered as described.

THE PARKES MUSEUM.

A GENERAL meeting of the subscribers to the Parkes Museum of Hygiene was held on Tuesday last in the Museum, University College. In the absence of Sir William Jenner, Mr. Berkeley Hill (Treasurer) was voted to the chair, and among those present were Dr. Sieveking, Dr. Russell Reynolds, Professor Corfield, Dr. Poore (Hon. Sec.), Dr. Gowers, Dr. Steele, Mr. Rogers Field, Mr. Basil Field, Mr. Christopher Heath, Mr. Mark H. Judge (Curator), Mr. Henry Vaughan, and Dr. Cock. The meeting was held to consider the advisability of making application to the Board of Trade for a licence to incorporate the Museum. Before the report of the Executive Committee was submitted the Treasurer presented a statement of accounts from the commencement of the undertaking in 1876 to the end of March this year. From this it appeared that the income, including the

profits of the International Medical and Sanitary Exhibition, had in round figures amounted to £2506, while the total expenditure for the six years had been £962, leaving a balance of £1544. Dr. Poore read the report of the Executive Committee, which, after giving an account of the work the Committee had been able to accomplish since its formation, went on to say that "the Committee had unanimously resolved to recommend to the subscribers that the Museum be formed into an association under a licence of the Board of Trade. Under such a licence the Museum will enjoy all the advantages of being a corporate body. Its funds will be invested in its own name, the trust will be carried on without break and for any length of time, and the Museum will be thoroughly competent to receive legacies and gifts, and generally to transact business under its corporate seal with as much readiness as an individual, subject only to the necessary legal restraints imposed by the proposed articles of association. Among other reasons which make the incorporation of the Museum a matter of urgent necessity is the fact that it is about to enter a new place of existence. The room at present used as a museum is full—so full that it is not safe to place any more weight upon the floor of it, and, further, intimation has been received from the Council of University College that the room will be required for other purposes at the end of the present session. It is evident, then, that a new home must be sought for the Museum, and before making an appeal to the public for the necessary funds, it is thought essential that the Museum should be placed on a secure legal basis." The report concluded as follows:—"Since the opening of the Museum it has been visited by over 5000 persons interested in sanitary progress, exclusive of those who attended the lectures and demonstrations which were given gratuitously during the winters of 1880 and 1881 by members of the Executive Committee, and those who attended the inaugural meeting in 1879 and the first annual meeting at the Mansion House in 1880, both of which were of great service in drawing public attention to the necessity of a knowledge of hygienic principles. During the past winter, owing to the crowded state of the Museum, the lectures and demonstrations have had to be discontinued; and the Committee trust that, under the régime which, it is hoped, is about to be instituted, the Museum will receive such an amount of public support as will enable it to continue its career of practical utility under conditions more suitable for conveying instruction than it at present enjoys." Dr. Russell Reynolds proposed, and Dr. Steele seconded, the adoption of the report, which was agreed to unanimously. The draft memorandum and articles of association under which it was proposed the Museum should be incorporated were unanimously approved, on the motion of Professor Corfield, seconded by Mr. Rogers Field. On the proposal of Dr. Sieveking, seconded by Dr. Gowers, it was agreed that the Executive Committee should be dissolved as soon as the incorporation of the Museum was completed, and a vote of thanks to the Chairman concluded the meeting.

ROYAL UNIVERSITY OF IRELAND.

THE Senate of this University met on Tuesday, April 18, for the purpose of electing Fellows and Examiners. There was a very large attendance. The Senate resolved to allocate, for the present, twenty-four of the Fellowships of the University as follows:—Classics, six; English, four; Mental and Moral Philosophy, four; Mathematics, four; Natural Philosophy, four; Chemistry, two. They further resolved to postpone any election of Fellows in the Natural and Medical Sciences. Among the Fellows elected were the following:—In Natural Philosophy—Professor John D. Everett, M.A. Glasg., D.C.L., D.Sc. Q.U.I., F.R.S.; Professor Joseph

Larmor, M.A. Cantab., Senior Wrangler and Fellow of St. John's College, D.Sc. Lond. and Q.U.I.; Rev. Professor G. Molloy, D.D.; (one vacancy). In Chemistry—Professor John Campbell, B.A., M.B. Dub., Scholar M.R.I.A.; Professor Maxwell Simpson, B.A., LL.D., M.D., D.Sc. Q.U.I., F.R.S. The following were among the Examiners elected:—In Surgery—A. H. Corley, M.D. Q.U.I. (Gold Medallist), F.R.C.S.I.; P. J. Hayes, F.R.C.S.E. In Medicine—B. G. McDowell, M.D., M.Ch. Dub.; S. M. MacSwiney, M.D., University of St. Andrews, F.K.Q.C.P.I., M.R.I.A. In Midwifery—John A. Byrne, B.A., M.B. Dub., L.K.Q.C.P.I., L.R.C.S., M.R.I.A.; H. M'N. Jones, B.A., M.D., M.Ch. Q.U.I., F.R.C.S. I. and Edin., Fel. Obstet. Soc. London. In Materia Medica—F. J. B. Quinlan, B.A., M.D. Dub., F.K.Q.C.P.I., L.R.C.S., M.R.I.A.; J. S. Reid, M.D. Edin., L.R.C.S. Edin., L.S.A. London. In Medical Jurisprudence—E. W. Davy, M.A., M.D. Dub., M.R.I.A.; M. O'Keefe, M.A., M.D., D.Sc. Q.U.I. (Gold Medallist). In Anatomy—C. J. Nixon, B.A., M.B., LL.D. Dub., F.K.Q.C.P.I.; J. P. Pye, M.D., M.Ch., D.Sc. (Hon. Causâ) Q.U.I. (Gold Medallist); Peter Redfern, M.D. Lond., D.Sc. (Hon. Causâ) Q.U.I., M.R.C.S. Eng., LL.D., S.A. Lond. In Physiology—J. J. Charles, M.A., M.D., M.Ch. Q.U.I.; C. Coppinger, F.R.C.S.I., Gold Medallist and Prizeman in Catholic University. In Botany and Zoology—A. G. Melville, M.D. Edin., M.R.C.S. Eng.; G. Sigerson, M.D., M.Ch. Q.U.I., L.C.P.I., F.L.S.

ANATOMICAL DEMONSTRATIONS.

DR. GARSON, the Assistant in the Museum of the Royal College of Surgeons, will give a course of "Demonstrations on the Comparative Osteology of the Vertebrata," in that institution, on Tuesday afternoons at four o'clock, commencing on the 2nd proximo. The course will be free to all students and other visitors to the Museum.

THE HUDDERSFIELD HEALTH REPORT FOR 1880.

THE annual report, for the year 1880, of Dr. J. Spottiswoode Cameron, Medical Officer of Health for the borough of Huddersfield, records that, notwithstanding the unusual prevalence during a part of the year of two endemic zymotic diseases, the deaths registered were fewer by twenty-nine than in the previous year (1879); in fact, at the commencement of the year under notice the town might have been considered exceptionally healthy. Later on, however, an outbreak of typhoid fever occurred, which is fully described by Dr. Cameron in his report, and as a result the infectious hospital of the district proved too small for the requirements. Since that time a new wing has been added to the building, which, it is calculated, will afford ample accommodation in future for the early isolation of cases of typhoid fever brought to the notice of the authorities. With regard to the compulsory notification of infectious diseases, the new Act obtained for Huddersfield seems to work much better than the old one. By the latter, notification was only required in cases where the medical man in attendance considered that the home accommodation was not sufficient, a clause which was variously interpreted by the local practitioners. The new Act gets rid of this difficulty, and Dr. Cameron adds that the members of the profession in the town have, with scarcely an exception, responded well to the appeal made to them to deal loyally in the matter; some of them, indeed, have gone so far as to express their great satisfaction at the change, since it relieves them of an invidious responsibility.

THE DUKE OF ST. ALBANS has promised to preside at the dinner of the Samaritan Hospital, to be held on Tuesday, May 16.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT the quarterly meeting of the Council of the Royal College of Surgeons, held on Thursday, last week, Dr. Humphry, of Cambridge, was re-elected a member of the Court of Examiners. A letter was received from the Secretary of State for the Home Department, respecting the appointment of two scientific analysts to undertake investigations in cases of criminal poisoning, one to be nominated by the President of the Royal College of Physicians, and the other by the President of the Royal College of Surgeons. The Council, on behalf of their President, accepted the proposed duty of nomination. Another communication was also received from the Home Secretary, in reference to the sale of poisons, and was referred to the President and Vice-Presidents for consideration and report. The report of the Visitors of the General Medical Council on the examinations of the College, and of some other medical authorities, was referred to the President and Vice-Presidents to consider and report upon to the Council after conference with the Board and the Court of Examiners. As at the College of Physicians, so with the Council of the College of Surgeons, the report is at present considered confidential. Mr. J. Cooper Forster moved—"That in future all candidates for the primary or anatomical and physiological examination, whether for the diploma of Member or of Fellow of the College, be only required to attend one winter course of lectures on anatomy instead of two courses of such lectures; and that candidates for the final examination, whether for the Membership or the Fellowship, be required to produce the following certificate—namely, of having attended during three months a course of surgical or regional anatomy, with demonstrations." The first part of the motion was referred to the Nomination Committee, and the last part to the Court of Examiners. The Council agreed to Mr. Thomas Smith's proposal that it should be referred to the Court of Examiners, "to consider and report to the Council whether or not it is desirable that all candidates rejected at the pass examination for the diploma of Member should be placed in the same category as regards the time required to elapse before they can present themselves for re-examination."

A report was received from the committee appointed to consider and report to the Council on Mr. Heath's proposal—"That on and after October 1, 1882, no candidate be admitted to the final or pass examination for the diploma of Member until after the expiration of two years from the date of his passing the primary or anatomical and physiological examination, unless he shall, before presenting himself for such primary examination, have completed the curriculum of professional study for the diploma, or shall possess a degree or diploma in medicine or surgery, or shall show reasons for exemption from this rule which shall be satisfactory to the Court of Examiners." The committee recommend to the Council the adoption of the principle of Mr. Heath's proposal; and, in order to give effect to it, recommend for approval by the Council the following regulations:

"Candidates commencing their professional education on or after October 1, 1882, will not be admitted to the pass or final examination for the diploma of Member until after the expiration of two years from the date of their passing the primary or anatomical and physiological examination for such diploma, except in the following cases, viz.:

"1. When a candidate, before presenting himself for the primary examination, shall possess a recognised degree or diploma in medicine or surgery, or shall have completed the curriculum of professional education for the diploma.

"2. In the case of a candidate who, being desirous of obtaining the Fellowship, shall fail to present himself for the primary examination for the Membership at the end of his second year of professional study, but who shall pass at the end of his third winter session the primary examination for the Fellowship, it being required in such case that not less than one year of attendance on the surgical practice of a recognised hospital shall intervene between the date of his passing the primary examination for the Fellowship

and the date of his presenting himself for the pass or final examination for the diploma of Member.

"3. In the case of a candidate who, having commenced his professional studies by attendance on the practice of a recognised provincial or colonial hospital, and having completed a year of such attendance, shall fail to pass the primary examination at the end of his second winter session of attendance at a recognised medical school, provided that in his case not less than one year shall elapse between the date of his passing the primary examination and the date of his presenting himself for the pass or final examination for the diploma of Member.

"4. When a candidate, owing to illness, duly certified by one or more of the teachers of his medical school, shall be prevented from presenting himself for the primary examination on the completion of his second year of professional study.

"5. And in the case of a candidate who, from some unforeseen circumstances, shall fail to present himself for the primary examination on the completion of his second year of professional study, it being left to the Court of Examiners to determine whether in such case the candidate shall or shall not be required to comply with the regulation."

The report was received, adopted, and ordered to be entered on the minutes.

The Jacksonian Prize of the College was awarded, as we reported last week, to Mr. William Alexander, M.D., F.R.C.S., for the best essay on "The Pathology and Surgical Treatment of Diseases of the Hip-Joint."

FROM ABROAD.

PARACENTESIS IN PLEURISY.

DR. BOWDITCH related two interesting cases of fatal pleuritic effusion to the Suffolk District Medical Society (*Boston Med. Jour.*, January 19), with the object of showing that death might have been prevented by paracentesis. In regard to one of them he says:—"If any of you should happen to be present at or immediately after death connected, as these two were, with pleuritic effusion, unhesitatingly plunge any instrument you may have at hand—whether aspirator, trocar, penknife, or sharp-pointed table-knife—instantly into the chest where the fluid is lying that has taken away the breath. Let it run out, regardless of all lack of disinfectants, deemed so necessary nowadays. Then, with an assistant to watch, and prevent, if possible, the external air getting into the cavity, while not checking the outward flow, do you excite artificial respiration by manipulating the walls of the thorax and abdomen, and by blowing air into the lungs from your own lips. Of course, other accidents besides apnoea may be the cause of sudden death in these cases. But because we cannot meet all contingencies is no reason for our not trying to meet one of the most obvious of them." He concludes his interesting narration by drawing a rule of conduct for his countrymen in relation to one of these fatal cases. "If we believe that the internal treatment followed in this German case, and the total neglect of thoracentesis by one of the most eminent clinical teachers of his time, be the usual course likely to be followed by his pupils, now spread over Germany, I think the opinion I still express, and the advice I shall give, proper and just. If, moreover, it be a fact that thoracentesis, as performed upon the European continent, has proved fatal in many instances, whereas I have yet to learn of any such fatality in New England, and I think in America, and when I myself have never met with such a death, I am persuaded that the operation is in fault in Europe. I believe the operation, *if carefully done*, with due regard to the *first moment* of suffering on the part of the patient (cough, dyspnoea, stricture of the chest), and if immediately thereupon the trocar is removed, is as simple and innocuous as vaccination or venesection. Such a remark does not apply to the operation as performed in Europe. My advice, therefore, to my patient visiting Europe will be as follows:—If you find yourself threatened with pleurisy, send for an American physician, and trust to him rather than to any other under the influence of Continental therapeutics. One

exception I feel bound to make. If you are in Paris summon M. Dieulafoy immediately. He does not decline thoracentesis when necessary, and his rules for the operation are perfectly safe. This may seem great presumption on my part. Nevertheless, I shall feel it my duty to give the advice upon the argument that at times much suffering may be prevented, and possibly some lives may be saved." In the discussion which followed, Dr. Bowditch's advice of prompt interference was generally approved of.

DR. VAN BUREN ON LITHOLAPAXY.

Dr. Van Buren, Professor of Surgery at Bellevue Hospital Medical College, observes (*Philadelphia Medical News*, January 14) that since the date of Dr. Bigelow's first communication on this operation in 1879 he has been concerned in thirty-four cases of stone, in all of which he has resorted to it, owing to the unexpected and invariable tolerance exhibited by the bladder under its employment. In none of these thirty-four cases has there been a failure in removing the stone within a reasonable time at one operation; and in thirty-three out of the thirty-four the cure has been reasonably prompt and satisfactory. In the fatal case, which was not a proper one for this or any other operation, there was unsuspected suppurative inflammation of the kidneys. In one case—in an otherwise healthy man of sixty-eight, who applied on account of bladder-disease of long standing, not knowing he had stone—1065 grains of urates were removed in seventy-five minutes, the grasp of the single stone having been over one inch and a half. The patient was up and about in a week. The cardinal feature of the operation, which explains the remarkable absence of after ill effects, is that the bladder, relieved from the presence of the foreign body, is left at rest and free from any cause of further irritation. In this respect it shares the great advantage of lithotomy. In less than a third of the cases the catheter has been required for a day or two after the operation; but the subsequent atony of the bladder, which had been expected from the experience of ordinary lithotomy, was conspicuously absent. In none of the cases, in fact, has there been other than complete tolerance by the bladder under gentle and judicious manipulation, and an entire absence of bad effects afterwards. In a certain proportion of the cases, in which there was chronic cystitis prior to the operation (about one in six or eight), phosphatic gravel has continued to be found in the bladder from time to time; but this has been combated by systematic washing out of the bladder by the fountain syringe. The youngest patient was a boy of nineteen; but in children, Dr. Van Buren does not recommend this operation, owing to the narrowness of the urethra, and to the fact that he has never lost a case of lithotomy in a child, out of thirty or forty cases.

"Cases of stone will doubtless occur, in which urethral stricture or rigidity may prevent the employment of the large evacuating, so desirable in the new operation, or in which a patient's feebleness may render it necessary to cut short the proceedings before the bladder has been entirely cleared out; but these must be quite exceptional. From my experience of the last three years, I judge that the operation of lithotomy, except in children, bids fair to become a somewhat rare and unusual proceeding, in the presence of a safer and equally efficacious remedy. Let us give credit, then, to Bigelow's original improvement in the treatment of stone, which, unless I am in error, promises to add great honour to American surgery."

UNIVERSITY OF DURHAM.—At a Convocation held on March 14 the following were appointed examiners for the First M.B. Examination:—In Anatomy—Frederick Page, M.D.; H. Morris, F.R.C.S. In Physiology—Thomas Oliver, M.D. In Chemistry—John Thomas Dunn, M.Sc. Durh. In Botany—James Murphy, M.D.

THE PARIS NIGHT SERVICE.—Dr. Passant, Director of the Paris Night Service, reports that for the quarter ending March 31, 1882, there were 1978 applications made, being an increase of 208 upon those for the same quarter of 1881. The mean number of nightly visits was 21.97 per 100 this year, and 19.66 per 100 last year. In this quarter 36 per cent. were men, 48 women, and 16 per cent. children.—*Gaz. des Hop.*, April 15.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 4.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

REPORT OF MORBID GROWTHS COMMITTEE ON THE SPECIMENS OF MYOSARCOMA OF KIDNEY SHOWN BY MR. FREDERICK EVE AND DR. DAWSON WILLIAMS.

MR. GODLEE read this report for himself and Mr. Marcus Beck. It confirmed the general accuracy of the description of the tumours given by the exhibitors, and referred at some length to two other cases which had been reported in Germany. One case was that of a child, aged nineteen months and a half, reported by Marchand (*Archiv für Path. Anat. und Phys.*), the second that of a boy aged three years and a half, reported by Huber (*Archiv für Klin. Med.*). In both cases the growth involved the tissue of the kidney, and in both contained cysts which appeared to be derived from the renal tubules. The reporters inclined to the theory that these tumours were derived from the Wolffian body, that view being supported by the situation in which they were found, by their congenital origin, and by the occurrence of similar growths in the testicle. On the other hand, the cysts invariably found were obviously of two kinds: in one epithelium was present, while in the other it was not. While, therefore, a growth merely of the Wolffian bodies might involve the renal tissue, yet in the specimens submitted the cystic spaces did actually represent renal tubules.

INTESTINAL OBSTRUCTION CAUSED BY DIVERTICULUM OF THE ILEUM.

MR. PITTS, for Mr. Sydney Jones, related the history of this case. The patient was a man, aged twenty-six, who for nine days before admission suffered from severe vomiting. At the time of admission it had become faecal. In infancy there was a long-continued discharge from the umbilicus. The abdomen was opened by Mr. Sydney Jones, and a tube immediately beneath the umbilicus which contained a quantity of pus was opened; this tube was ligatured and removed. The patient died next day, and at the necropsy it was found that there was a diverticulum from the ileum, and that this was also attached to the caecum. The canal of the diverticulum was constricted where the ligature had been applied. Mr. Pitts also referred to two other similar cases which had recently occurred in St. Thomas's Hospital. In one of these cases, a child was admitted with a strangulated hernia at the umbilicus; the hernia was liberated by operation, but the child died; there appeared to be a persistent vitelline duct with adhesion to the umbilicus, and giving way of the abdominal wall at the umbilicus.

DR. HADDEN said that he had made the post-mortem examination in the first case. The divided diverticulum had already contracted adhesions, and a loop of intestine had slipped under this. He thought that this observation showed that to divide and return these diverticula was not unattended with danger. He believed that the case pointed to the advisability of dividing these diverticula close to their origin.

SIR JOSEPH FAYRER said that, in the case of a patient of his who had died of abscess of the liver, at the post-mortem examination he had found a very long diverticulum of a calibre as large as that of the gut. (The specimen was shown.)

MR. GAY said that he believed these cases were not so rare as had been supposed. He thought that many of the so-called bands of adhesion were really hollow tubes, and that it might therefore be somewhat dangerous to divide them in the manner suggested by Dr. Hadden.

A NEW TRACT OF SPINAL DEGENERATION.

DR. HADDEN showed microscopical specimens, taken from a small fragment of the upper cervical region of the cord, which was given to him by Professor Greenfield. The specimen, which had been lying by in spirit for nearly two years at the Brown Institution, was said to have been taken from a patient suffering from locomotor ataxy. Unfortunately he had been unable to get the clinical history of the case. The value of the observation was therefore purely

pathological. In front of each crossed pyramidal tract—in that part of the cord known as the anterior root-zone, or Flechsig's fundamental region of the lateral columns—is a symmetrical area of degeneration. No other change, either in the grey or white matter, is visible. Although the case was supposed to be one of locomotor ataxy, the posterior columns are quite intact. The degeneration does not appear to be due to overgrowth of the neuroglia, but is apparently granular. Under a moderately high power there are seen at the boundaries of the degenerative area swollen axis-cylinders, together with amyloid bodies. The latter are probably artificial, and depend on the way in which the specimen has been preserved. The morbid area itself seems to consist of a confused mass of granular *débris*. The bloodvessels are thickened, and in some parts contain numerous blood-cells. As to the significance of this degeneration, little can be said in the absence of the clinical history. It is almost certain, however, that it is not secondary to a cerebral lesion, for in that case we should expect a unilateral and not a double spinal lesion. It is impossible to say whether it is a primary spinal lesion or secondary to disease either of the cord itself or of the peripheral nerves. The lesion is probably ascending, for no trace of degeneration was found in sections made at a higher level than that at which the section shown this evening were taken. In his work on "Diseases of the Spinal Cord," Dr. Gowers figures a degenerative tract which is identical in position with the one just described. In this case the lower end of the cord had been crushed. There was secondary degeneration of the columns of Goll, as well as of the tract just referred to. In the case of Dr. Gowers, sensation was profoundly impaired; and hence he infers that some form of sensation is conducted in this region. As yet, the existence of this tract is supported only by these two observations. In his recent work on "Spinal Localisation," Charcot remarks that the region in front of the crossed pyramidal tracts has hitherto not been found the seat of system-degeneration. Dr. Gowers, who has seen the specimens now shown, believes that the degenerative areas are identical in position with those figured and described by himself.

DR. GOWERS observed that he was not quite certain whether the degeneration was the same as in Dr. Hadden's specimens. The tract, he said, had not exactly the same form in both cases, and it was impossible to say whether they occupied precisely the same region. If they were the same, then Dr. Hadden's case was of great interest, as tracing up the degeneration a little higher than he had himself been able to do. Degeneration of the medulla in this region had not often been observed, but he believed that it was an ascending degeneration, and involved a tract of fibres concerned with the conveyance of sensory impressions. This view was confirmed by some recent observations of Flechsig.

CONGENITAL CARDIAC DISEASE.

DR. HADDEN related a case of congenital cardiac disease. The patient was a female child, four months old, and was under the care of Dr. Bristowe at St. Thomas's Hospital. On admission, the face was pale, the hands and lips livid, the chest expanded badly; the respiration was 66. Lung-resonance in front was impaired, but breathing was vesicular. At the bases there was impaired resonance, with crepitation and rhonchi. No cardiac murmur was heard; no mention was made of heart's dulness in the notes. Improvement followed the next day. On the third day there was dulness over the left lung anteriorly, and scattered dulness at both bases, with crepitation and rhonchi. Before death the respiration was 96, and the temperature 101°. Post-mortem, the heart weighed four ounces, the average weight at patient's age being rather less than one ounce. The septum between the ventricles was imperfect above, admitting the middle finger easily. The right ventricle was much hypertrophied, a quarter of an inch thick in some parts; the cavity was dilated at the right apex-wall half an inch transversely. The muscular papillae were much hypertrophied; the left ventricle was much hypertrophied; the foramen ovale and ductus arteriosus, although allowing the entry of a small probe, were practically closed. The pulmonary artery was large, the aorta inversely small. Both arose from the ventricle in the usual way. Both the lower lobes of the lungs were collapsed; the upper lobes were relaxed and crepitant; the bronchi were dilated. The nature of the

case was not suspected during life, perhaps because the pulmonary trouble obscured physical signs referable to the heart. It is worthy of note that the heart weighed nearly five times the usual amount.

SPECIMENS FROM A CASE OF FARCY.

Mr. STANLEY BOYD exhibited some microscopic specimens showing the cutaneous changes in farcy. The patient had been a stableman, aged eighteen, and some of the horses he served were glandered. On August 1 he experienced rigors, joint pains, and great *malaise*; a week later, an abscess formed below the head of the left fibula; on August 18 the left eye began to swell and became closed. When admitted into University College Hospital, on August 23, there was a large sloughy ulcer on the left leg where the abscess had been; there were a few pustules on the right cheek, an abscess over the wrist, and several circumscribed red patches on the limbs; the left eye was much projected, the whole left temporal fossa was swollen, but no pus could be obtained in the orbit or fossa by the aspirator. The temperature ranged from 101° to 103°, and he was delirious. The pustular rash spread rapidly, and the contents of the pustules become bloody; there was no discharge from the anterior nares, but there was frequent expectoration of a sanio-purulent fluid. Before death, which occurred on the twenty-sixth day of the disease, the right eyelids began to swell, the left cornea lost its polish, the respirations rose to 44, and he became semi-comatose; the temperature rose to 108° Fahr. two hours and a half before he died. At the post-mortem examination there was purulent inflammation of both ankles and knees, and among the deep fibres of the temporal muscle on the left side, and among the muscles of the orbit; in the lungs were numerous abscesses, varying in size from a millet-seed to a filbert; on the upper surface of the liver was an abscess the size of an orange; the kidneys were in a condition of cloudy swelling; a few pustules were found about the pharynx, near the orifice of the larynx. Mr. Boyd remarked that the accounts given in the text-books of the microscopical anatomy of farcy buds were unsatisfactory; he believed the pustules were really small abscesses in the superficial layer of the skin, and differed from the small-pox pustules, in which the effusion occurred into the rete Malpighii, destruction of the papillæ, if it occurred, being secondary. Referring to Mr. Bendall's recent communication to the Society, he had not found, by the use of osmic acid, any abnormal fat about the pustules; he had also prepared specimens with bismarck brown, and with methyl violet, but had failed to find any organisms in the matured pustules.

Mr. BENDALL observed that there seemed to be a considerable degree of variation in the character of the contents of the farcy buds: some were true pustules, and when opened were found to contain pus; but in other cases there seemed to be a localised slough. He attributed this difference to the varying intensity of the inflammatory action.

Mr. GODLEE said that in a case he had seen the buds had different characters at different periods of the disease. It was interesting to learn that organisms were found in the early, but not in the mature, stage of the pustules; this coincided with the observations of Ogston. These cases of acute farcy resembled cases usually classed as "septicæmia with pustular eruption"; might not the latter be really instances of farcy?

COLLOID SCIRRHUS OF PROSTATE.

Mr. S. BOYD, who also showed this specimen, said that the patient was a groom, aged fifty-five, who, about two years before his death, was suddenly seized with retention of urine. The urine, when drawn off, was found to be thick and turbid; frequency of micturition ensued, with foul, turbid urine, and on several occasions small calculi was passed. When admitted into St. Peter's Hospital, the urine was alkaline and tinged with blood; the blood came at the end of micturition, and was often followed by pus and sloughy tissue. The patient died somewhat suddenly. No complete post-mortem examination could be made, but the bladder and prostate were removed. The prostate was infiltrated with a new growth, which extended back and implicated the bladder, leaving only the posterior part of that viscus unaffected; both vesiculæ seminales were filled with colloid new growth, and the opening of the ureters was, in each case, at the

summit of a nodule of growth. The microscopical examination showed a fibrous stroma, with numerous alveoli; the stroma was never so dense as in scirrhus of the breast; there was extensive colloid degeneration, which was a rare and interesting phenomenon.

GREAT ENLARGEMENT OF THE RIGHT AURICLE OF THE HEART.

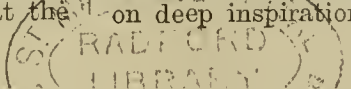
Dr. LEACH (of Manchester), who showed this specimen, stated that the patient was a woman, aged forty-two, who had suffered from rheumatic fever when fifteen. About nine years before death, symptoms of heart-disease began; in 1879 there were anasarca, ascites, bronchitis, and signs of mitral stenosis. There also appeared to be great dilatation of the right auricle; later in the case a murmur, attributable to tricuspid disease, appeared. She improved materially under treatment; but about six months after she had been discharged from the hospital, she again returned in much the same condition as above described. She gradually grew worse; the murmurs heard varied from time to time; the pulse became excessively weak, ascites increased, and she died. At the necropsy, the heart was found to be very large, the enlargement being due chiefly to the great increase in the bulk of the right auricle, which measured six inches in length by five inches in breadth. There was marked stenosis of the tricuspid and of the mitral valves, the right ventricle was very little enlarged, the left auricle considerably, and the left ventricle not at all.

TWO CASES OF RECURRENT MYXOMA.

Mr. BUTLIN said that specimens of pure myxoma were so uncommon that he had thought it well to bring forward these two cases, which had recently been met with at St. Bartholomew's. The first was a myxoma of the breast. When the patient was first seen, the tumour had all the appearance of an ordinary adeno-fibroma; in the other breast, at that time, were numerous sinuses; after these had healed (two years later) the tumour grew in one year from the size of a walnut to that of a cricket-ball. It was then thought advisable to remove it. It was found to be distinctly encapsuled, and to present all the general characters of a myxomatous tumour; but, on microscopical examination, very few stellate cells were encountered. Recurrence occurred in the scar, and the tumour was again removed. It was again circumscribed to some extent, but involved the skin and the subjacent muscle; the growth had the same character, but the cells were more numerous. The axillary glands were not affected. The second case was that of a man who, when first seen in 1880, presented a tumour in connexion with a scar about the scapula. He stated that a tumour had been removed from the neighbourhood about two years earlier. It was again removed, but recurred in two months in two places; on this second occasion it was adherent to the skin and muscles. At the first removal the specimen was a pure myxoma, but at the second the cells were rounded, or oval, or signet-shaped. He believed the tumours were really of a sarcomatous nature, for they spread in the way in which sarcomata spread; the cells varied much in form, and the clinical history was that of sarcoma. He suggested that it might be possible in time to abolish the separate class "myxoma," believing that it would be found that all tumours to which that name was now applied would fall under the head either of sarcoma or of fibroma.

BILATERAL PARALYSIS OF GLOTTIS-OPENERS AND COMPRESSION OF THE TRACHEA IN A CASE OF MALIGNANT(?) TUMOUR OF THE THYROID GLAND.

Dr. FELIX SEMON showed a larynx and thyroid gland which had been sent to him by Dr. Byers, of Belfast. The specimen was removed from the body of an old gentleman who had consulted him (Dr. Semon) in July, 1881, for inspiratory dyspnoea. A "tumour in the throat" had been diagnosed elsewhere. The patient showed the remarkable combination of very noisy inspiration, free expiration, and unimpaired voice; which is almost pathognomonic, according to Riegel, of bilateral paralysis of the glottis-openers (posterior crico-arytænoid muscles). Laryngoscopic examination completely corroborated this preliminary diagnosis, the vocal cords coming completely together on phonation, but not even separating up to the cadaveric position on deep inspiration. Careful examination of the organs o



the thorax, of the neck, and of the centres failed to give any clue as to the cause of the paralysis, and the diagnosis in this respect was left in suspense, the possibility of a purely myopathic disorder being kept in view in this case for special reasons. A serious prognosis was given out, and early tracheotomy advocated in case that other measures (electricity, hypodermic injections of strychnia, etc.) should fail, which latter event was rather anticipated. This operation was ultimately performed, but gave only partial relief. Attacks of dyspnoea occurred repeatedly; the patient became unconscious on the evening of the fourth day after the operation, and died on the morning of the fifth, the heart finally failing. A partial post-mortem examination only was obtained. The thoracic organs were found to be quite healthy, and the cerebrum was not examined. Larynx and thyroid gland were sent to Dr. Semon, who examined the specimen in conjunction with Mr. Stewart and Dr. Seymour Taylor of St. Thomas's Hospital. The thyroid gland was found to be rather large for an old man, but, looked at from the front, did not present any abnormality. On looking into the larynx, which, on account of this very unusual state of things, had not been opened, it was plainly visible that even now the vocal cords did not occupy the usual cadaveric position, but were lying so close together that their inner borders almost touched each other. (Dr. Semon explained this to be due very likely to the membrana elastica of the larynx having lost its natural tension in consequence of the long duration of the affection.) Both posterior crico-arytænoid muscles were found to have undergone extensive fatty degeneration and atrophy, whilst the striation of the interarytænoid muscle was found to have remained intact. Thus there was isolated affection of the abductor muscles. This affection was seen to be due to the left recurrent laryngeal nerve being pressed upon by the hindermost part of the left wing of the thyroid gland, and to the right recurrent being firmly implicated into a hard mass which was situated on the posterior fourth of the trachea, and contiguous with the hindermost part of the right wing of the thyroid gland. This mass, moreover, pressed from behind, and to a small extent laterally, upon the uppermost rings of the trachea, softened them completely, and bulged so much inwards the parts on which it pressed that there was a second tracheal stenosis by compression underneath the laryngeal, and due to the nervous disorder. The nature of this mass was somewhat doubtful; it seemed to be mostly fibroid, with perhaps some cancerous elements in its deepest layers. Of the manifold points of interest in the case, four were especially mentioned:—1. The occurrence of the double stenosis. Dr. Semon expressed a strong opinion that the real tumour could not have been felt by palpation during life, it being situated behind the trachea. What had been considered to be a tumour was, no doubt, the large thyroid gland. Under no circumstances could the existence of the second obstruction by compression have been diagnosed during life; the constant approximation of the vocal cords not only explaining fully the dyspnoea, but at the same time preventing an inspection of the lower parts. The case taught the important lesson that in such cases one always ought to have the possibility of a second stenosis lower down in view. 2. The softening and atrophy of the tracheal cartilages formed a good illustration of Rose's view, viz., that the comparatively frequent occurrence of sudden death in cases of goitre is often due to the fact that the trachea, after having been changed by the pressure of the goitre into a soft, yielding tube, was tilted during sleep, after extirpation of the goitre, etc., round its own axis, and that suffocation was thus produced. 3. The paralysis of the left cord had been possibly due to pressure upon the right pneumogastric nerve, in accordance with Dr. George Johnson's theory; more probably, however, to the direct pressure upon the left recurrent nerve. 4. The existence of an isolated paralysis of the abductors, the whole nerve-trunks being evidently affected, was a new good corroboration of Dr. Semon's doctrine, viz., that the abductor fibres of the motor nerves of the larynx were more prone to suffer in cases of organic disease than the adductor fibres.

TUMOUR OF THYROID, WITH EXTENSIVE SECONDARY DEPOSITS.

Mr. HAWARD showed these specimens, together with microscopic sections. They were obtained from the body of a woman who had died in St. George's Hospital. She had had a bronchocele for some twelve years or more, and had

died during an unusually severe attack of dyspnoea. At the autopsy secondary growths were found in the skull, on the scapula, and on the ilium; and within the spinal canal also a nodule was found, which had pressed on the cord and caused paraplegia. Deposits were also found in the lungs and liver and spleen. When examined microscopically, all the deposits closely resembled the structure of a thyroid gland. This case resembled one shown by Mr. H. Morris a year or two ago.

CARD SPECIMENS.

Mr. HUTCHINSON, jun.—Pyæmic Liver and Knee-Joint from a Lamb.

Mr. S. JONES—1. Round-Celled Sarcoma of Humerus; 2. Portion of a Uterus with Fibroma which he had removed.

Mr. PARKER (for Mr. Scott Battams)—Larynx, after Tracheotomy, with Pedunculated Mass of Granulations corresponding to cicatrised wound. The canula had been removed about fifteen days. The child died suddenly, after an attack of dyspnoea, which seemed due possibly to partial closure of the cricoid opening by this granulation mass.

Dr. MORRISON—Hydronephrosis.

Dr. LEACH (Manchester)—Dilatation of Aorta.

Sir JOSEPH FAYRER—Diverticulum of Small Intestine.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 14.

JOSEPH LISTER, D.C.L., F.R.S., F.R.C.S., President, in the Chair.

CASE OF PYELITIS, IN WHICH THE KIDNEY WAS EXPLORED AND PARTIALLY REMOVED—DEATH.

Mr. HOWARD MARSH read notes of a case of pyelitis, in which the kidney was explored and partially removed; death occurring in thirty hours from suppression of urine. The patient, a blacksmith, aged thirty-five, was admitted into St. Bartholomew's Hospital in October last. He had had severe pain in the right loin for three years, and for eighteen months the urine had been ammoniacal and had deposited a light-coloured sediment. He had never observed blood. On admission he was pale, and his countenance was worn and anxious. The urine showed pus equal to a third of its bulk on standing, and also a small amount of blood; it was highly ammoniacal and very foetid. The patient complained of pain shooting down from the right kidney in the course of the ureter to the testis. There was some tenderness on pressure over the kidney, but nothing abnormal could be felt either in the brain or anteriorly. There was no stricture of the urethra, and no stone in the bladder. The patient was kept in bed, and in order to ascertain whether his symptoms depended on any bladder-disease complicating the mischief in the right kidney, the bladder was injected every morning for ten days with one grain of quinine dissolved in an ounce of slightly acidulated water, and subsequently with water gradually raised to a temperature of 120°. He was also put on a pure milk diet. But none of these methods improved the condition of the urine. At the end of two months, as he was still passing large quantities of foetid pus, the kidney was explored, through an incision extending downwards and forwards from the last rib to the crest of the ileum. It was found greatly enlarged, sacculated, and very firmly bound down by dense inflammatory tissue. On stripping off its capsule—a matter of considerable difficulty—and puncturing its cortical substance, a large quantity of thick and strong-smelling urine escaped. As the whole kidney was evidently disorganised, an attempt was made to remove it, but it was so firmly adherent that this could not be accomplished. What had been exposed was therefore included in a double ligature, and removed by curved scissors. No hæmorrhage of any moment occurred during the operation, but the patient died in thirty hours of complete suppression of urine. On post-mortem examination, the right kidney was found converted into a number of large cysts. Three inches below its commencement the ureter was so narrowed that its canal would only admit an ordinary probe. Above this point it was considerably dilated. These conditions seemed to have been produced by the healing

of an ulcer in the ureter, perhaps of a tubercular character. The left kidney had the appearance of being fairly healthy; it weighed six ounces. The author remarked that he was induced to resort to an operation in this case—though, in consequence of the patient's general condition, he did so very unwillingly—in the hope of doing good either by extracting a stone, or establishing free drainage, or of removing the kidney if it proved to be extensively diseased. It might be a warning for future cases that the condition of the kidney was much worse than there seemed reason to anticipate. Though it could not be felt during careful examination under ether, it was very large; it was so far destroyed that very little renal structure remained, and it was so firmly adherent that its removal was found to be impracticable. Seeing how limited is the space afforded by the incision in the loin, the author thought that experience was likely to show that the best method of removing large kidneys, or kidneys that are bound down by firm adhesions, was by abdominal section, the incision being made just external to the rectus muscle. He concluded by remarking that though recent cases show that the kidney may be safely explored by the loin incision, and though calculi of small size may be safely extracted from kidneys that are structurally healthy, further experience alone can teach us in what cases the kidney may be safely removed. One point must be carefully borne in mind—namely, the liability to suppression of urine from the opposite kidney. He thought the removal of the kidney in persons over thirty was, on this account, one of the most dangerous proceedings in the whole range of legitimate operative surgery.

EXTIRPATION OF THE KIDNEY FOR CALCULOUS PYELITIS.

Dr. BARLOW and Mr. GODLEE read a case of extirpation of the kidney for calculous pyelitis. The patient was a laundress, aged fifty-seven, of somewhat intemperate habits, who came under Dr. Barlow's care in June, 1881. Her family history presented no feature of interest, and though she recollected, on being carefully questioned, that she had passed a small calculus twenty-six years previously, she maintained that the present illness dated only from three months previously. She suffered now a considerable amount of pain, which prevented her from getting about, and had at one time a good deal of œdema—of the right leg especially—which subsequently disappeared. The urine contained a large quantity of pus; it was in fair amount, but not much more than about two-thirds of the normal quantity of urea was secreted in the twenty-four hours. The kidney was easily felt, forming a large tumour in the hypochondriac region. The woman was somewhat anæmic, and had a slight cardiac murmur, but was otherwise in good health. The amount of pain, and the quantity of pus in the urine, seemed to justify the authors in suggesting the operation to the patient—though not on pressing it—withstanding her comparatively advanced age, and after due consideration she consented to its performance. The existence of calculus had been previously ascertained by puncturing the kidney with the needle of an aspirator. The operation was performed, with all antiseptic precautions, by Mr. Godlee on July 14, that chosen being the abdominal section. It presented great difficulty from the density of the structures round the kidney, but was satisfactorily accomplished, the patient at the time suffering remarkably little from shock. A morphia suppository was at once administered, and some tincture of opium was given by the bowel later in the day. The patient appeared to be progressing favourably for the first twelve hours, and then passed into a quiet sleep. When aroused next morning it was found that the temperature was high; that little or no urine was being secreted; that the respirations were becoming very hollow; and that the patient was in a state of semi-consciousness. From this condition she did not recover, but died about twenty-four hours after the operation. At the autopsy the left kidney and the other viscera were found to be practically healthy. It was suggested that the amount of morphia administered had something to do with the patient's death, and that possibly the carbolic acid absorbed during the operation may have helped to this result, though, doubtless, the suppression of urine, from whatever cause it arose, was the most important factor. The parts removed, and half the kidney of the opposite side, were shown at the meeting.

Mr. CLEMENT LUCAS thought he would not like to operate

in such cases after the age of forty. If Mr. Marsh had cut two ways with a kind of Γ incision, he would have found more room. He thought Langenbuch's incision best, that was just outside the rectus abdominis; but if the incision was to be lumbar he would try to deal with the ureter first.

Mr. BARWELL said: I am sure that the members of this Society will feel, with me, more indebted to those who bring before their notice unsuccessful cases of nephrectomy than to those who report successful ones; since to trace the causes of failure guides more surely to future good results than records of a success whose cause may often be occult. In regard to the choice of method, I would observe that, although each case must be judged upon its own characters and features, yet to enucleate the kidney from the loin, whenever feasible, will ever prove a less dangerous and severe operation than to remove it from the front. I not only fully agree with Mr. Lucas concerning the additional room to be gained by making a second incision along the lower border of the last rib, but would also point out that I (for the first time, I believe, in the history of surgery) adopted this expedient when operating on a case which is reported in the "Transactions of the International Congress" (vol. ii., page 275). Two conditions which have been mentioned this evening, and also a third difficulty, were present in that case—namely, large size of gland, firm cicatricial adhesions to parts around, and unusual proximity of the twelfth rib to the iliac crest. The second incision was therefore necessary. The kidney could not be separated as a whole. But when a part was broken down it was tied and removed, which gave room for another peeling away and removal, until, after three such manipulations, I was able to place a fourth ligature round the vessels. I cannot but think that to leave a part of the kidney—not, of course, the vessels, but the parenchyma of the gland itself—tightly ligatured may involve an element of danger, as causing by sympathetic irritation the remaining gland to cease its function. In cases of pyelitis, calculous or otherwise, the urine is of course albuminous, and there is therefore difficulty in determining if the painless organ be really sound; and in my cases I have been struck by the fact that for some hours after operation the amount of pus in the urine did not diminish. This is, I presume, because the tube of the ureter, and probably also the bladder, was suppurating from infective causes. After nephrectomy, too, another point is worthy of careful consideration: the remaining kidney, having increased work to do, becomes hyperæmic, and the albuminuria will therefore increase, especially if debility or shock render stimulants necessary. Of these, therefore, as little as possible—or indeed none at all, unless absolutely essential—should be administered; even meat should be for some few days avoided. I have now under my care a man with hæmaturia, pyelitis, kidney-pain, and other symptoms of nephrolithiasis; the condition appears very similar to the case related by Mr. Howard Marsh. I shall during next week make an exploratory incision at the loin, and, unless either the cavity or the stone be small and uncomplicated, shall probably remove the whole gland. For I hold nephrotomy to be a mere temporary expedient, useful where nothing else can be done, or as a first step to the removal of a very large and cystic organ. Neither does it appear to me that a large or branched stone can be removed with a fair prospect of permanent benefit. Even the very successful cases of extraction of small stones, which have been related to this Society, require the test of time; for experience may show relapse to be a frequent sequela, either on account of particles remaining behind, or on account of the cicatrix left in the organ forming a little roughness about which calculoid matter will gather. But, as I said before, the surgeon must be guided by the characters of every case. The proportional success of all these operations will depend on a discriminative selection of cases, on a judicious choice of the procedure adapted to each, and on very minute care in carrying out every step of the operation and every phase of the after-treatment.

Dr. SOUTHEY thought that the first thing to determine, as regarded operation or no operation, was the condition of the urine, especially as regards urea. No operation should be performed when the quantity of urea was too small, as this commonly showed that the other kidney was affected. But even without cutting out the kidney, much good might be done by washing out its cavity by a double stream of water. In one case this was followed by contraction of the cavity;

but even then it had to be opened, which was done antiseptically. The patient left well, and passing plenty of urea.

Dr. DYCE DUCKWORTH mentioned the case of a boy, aged thirteen, strong for his years, who began to complain of pain in the left loin, after which pus made its appearance in the urine, but soon disappeared. Mr. M. Baker tried exploration, when much pus came away. No calculus was found, but the boy did very well.

Mr. MORRANT BAKER considered the case to be one of pyonephrosis. There was no question of removal; the pain was relieved, and the pus and urine continued to be discharged. He thought that, on the whole, the abdominal section, with antiseptic precautions, was the best for the patient. If the incision were made in the loin he would not use carbolic acid, as there was too much risk of absorption. It was not always well to proceed to removal at once; the first operation might be purely exploratory.

Dr. MAHOMED was struck with the extreme harmlessness of nephrectomy and nephrotomy. He mentioned the case of a patient who had a large lumbar swelling, apparently due to perinephritis. The patient died of tuberculosis, and the post-mortem examination showed that an operation would not have given rise to much danger. The kidney itself was of the ordinary size, and only adherent at one point to its surroundings. He thought it would always be better to try an exploratory operation before attempting to cut out the kidney.

Mr. BARKER said that a large number of recorded cases had proved fatal, at least up to a certain time. Some, when they came under notice, could not well be operated upon, and the kidney could not be removed. It would be a dangerous experiment to cut through the peritoneum into a suppurating kidney. It was better, therefore, to examine it through the loin, and try free drainage for a time. Some cases had done well even when the patients were fifty and sixty. In a recent case, where he had cut through the loin, he did not use the spray, and he was not greatly in favour of exploratory operations.

Mr. GODLEE and Mr. MARSH having replied, the meeting adjourned.

EAST LONDON HOSPITAL FOR CHILDREN.—We hear that Dr. Andrew Clark has consented to preside at the next anniversary dinner of this Hospital, which is to be held at Willis's Rooms some time in June next. It has been decided that ladies shall be admitted as well as gentlemen, and hopes are entertained that at least one lady of august birth will graciously consent to be present. Surely the festival dinner of a hospital which is maintained for children and women is an occasion on which the custom of excluding ladies may most appropriately be relaxed.

THE AMERICA OF THE FUTURE.—Dr. Oliver Wendell Holmes says:—"As the wine of old vintages is gently decanted out of its cobwebbed bottles, with their rotten corks, into clean, new receptacles, so the wealth of the New World is quietly emptying many of the libraries and galleries of the Old World into its newly formed collections and newly raised edifices. No Englishman will be offended if I say that before the New Zealander takes his stand on a broken arch of London-bridge, to sketch the ruins of St. Paul's, in the midst of a vast solitude, the treasures of the British Museum will have found a new shelter in the halls of New York or Boston. No Catholic will think hardly of my saying that before the Coliseum falls, and with it the imperial city, whose doom prophecy has linked with that of the almost eternal amphitheatre, the bronzes, the paintings, the marbles, the manuscripts of the Vatican will have left the shores of the Tiber for those of the Potomac, the Hudson, the Mississippi, or the Sacramento."—*Phil. Med. Reporter*, March 18.

THE VACCINEUSE.—If practical trial is favourable to this ingenious instrument invented by M. Burq, and laid before the Académie des Sciences by Prof. Pasteur, vaccination will be singularly facilitated. By means of M. Burq's vaccineuse we may charge easily sixty needles, which are well formed, well protected, easily forwarded, and capable of being used by anyone. Two vacciferous subjects will suffice to charge them, and by these sixty needles 150 vaccinations can be executed.—*Lyon Méd.*, April 16.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, April 10, 11, 12, and 13, the following candidates were successful:—

For the Licence to practise Medicine—

Cosgrave, Ephraim MacDowel.	Durbin, Robert Charles Garde.
Daly, James Henry.	Hearn, Michael Leo.
Daly, Thomas.	McIlroy, John.
Denning, Charles Ernest.	Oldershaw, John.
Stafford, Thomas Joseph.	

For the Licence to practise Midwifery—

Barnes, John Edward Snow.	Hearn, Michael Leo.
Daly, James Henry.	McMurray, Wahab.
Daly, Thomas.	Oldershaw, John.
Denning, Charles Ernest.	Stafford, Thomas Joseph.
Thompson, William Christopher.	

The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership, have been duly admitted Members of the College under the provisions of the Supplemental Charter of 1878:—

Tyndall, John, 1868, Surgeon R.N.
 Smyly, William Josiah, 1872, Dublin.
 Grier, Henry, 1873, Surgeon A.M.D.
 MacGrath, William Michael, 1876, London.
 Maturin, Leslie, 1875, Kilmainham.
 O'Grady, Standish Thomas, 1876, Surgeon R.N.
 Cox, Michael Francis, 1877, Dublin.
 Rutherford, Robert Leonard, 1878, Exminster.

(The numerals indicate the year in which the Licence in Medicine of the College was obtained.)

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 13th inst., and when eligible will be admitted to the Pass Examination, viz.:—

Armstrong, Hugh, student of University College Hospital.
 Branson, Herbert W. A., of King's College Hospital.
 Caleb, Cornelius C., of King's College Hospital.
 Felix, Edward, of Charing-cross Hospital.
 Guinness, H. Grattan, of the London Hospital.
 Hudson, Charles L., of Middlesex Hospital.
 Jolliffe, Albert R., of Charing-cross Hospital.
 Jollye, Arthur D., of Charing-cross Hospital.
 McCabe, William A. B., University College Hospital.
 MacGillycuddy, Niell, University College Hospital.
 Maurice, William J., of St. Thomas's Hospital.
 Phillips, Ernest W., of Guy's Hospital.
 Pinhorn, Richard, of St. George's Hospital.
 Randell, Reginald M. H., of Guy's Hospital.
 Robertson, James S., of Middlesex Hospital.
 Stace, Arthur F., of Middlesex Hospital.
 Tubby, Alfred H., of Guy's Hospital.
 Wills, William A., of the Westminster Hospital.

Four candidates were rejected, including one for six months, instead of three. The following gentlemen passed on the 14th inst., viz.:—

Ackland, John McK., student of Charing-cross Hospital.
 Anderson, George E. C., of Guy's Hospital.
 Barnett, Lawrence, of University College Hospital.
 Bowes, William H., of Guy's Hospital.
 Bray, Percy D., of Middlesex Hospital.
 Cann, Ralph T., of St. Thomas's Hospital.
 Chambres, Charles, of University College Hospital.
 Freeland, Ernest H., of Middlesex Hospital.
 French, George W. H., of St. Mary's Hospital.
 Gray, John P. W., of King's College Hospital.
 Harris, J. D. Johnstone, of Charing-cross Hospital.
 Heywood, Thomas W., of the Manchester School.
 Macdonald, George C., of the Westminster Hospital.
 Smith, Franke C. H., of University College Hospital.
 Smith, John C., of Charing-cross Hospital.
 Trevor, Robert, of St. George's Hospital.
 Wallinger, Robert N. A., of King's College Hospital.

Forty-five candidates out of the 232 examined having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including two who had an additional three months.

The following gentlemen having undergone the necessary examinations, were admitted Members of the College at a meeting of the Court of Examiners on the 18th inst., viz.:—

Baber, John J. Y., Thurlow-square, S.W.
 Bateman, Hinton E., Canterbury.

Beales, Thomas W. L., Holland-road, Kensington.
 Beswick, Robert, L.S.A., Cheshunt.
 Bowe, Arthur, Shipley, Yorks.
 Codd, Arthur F. G., Clarendon-road, W.
 Evans, William H., Seaton, Devon.
 Everest, Clare A., L.R.C.P. Edin., Gipsy Hill.
 Feeny, Michael H., L.R.C.P. Edin., Castlebar.
 Hearnden, W. Carrington, Sutton, Surrey.
 Hewitt, Frederick W., B.A. Cantab., Grove-place, S.W.
 Jalland, Robert W., L.S.A., Horncastle, Lincolnshire.
 Knowles, R. Broughton, L.R.C.P. Edin., Sussex-street, S.W.
 Lea, Francis J., L.S.A., Downside, Bath.
 Mole, R. Bissell, L.R.C.P. Edin., Redditch.
 Powell, Simpson, L.S.A., Southborough, Kent.
 Sinclair, Thomas, M.D. Queen's Univ. Ire., Belfast.
 Stevens, Bertram H. L., Chester.
 Vos, George H., B.A. Cantab., West Dulwich.
 Willoughby, Alfred H., Aberdeen-place, W.

Nine candidates were rejected. The following gentlemen passed on the 19th inst., viz. :—

Black, Robert, L.S.A., Brighton.
 Bull, William C., B.A. Cantab., Bromborough, Cheshire.
 Butler, Gilbert E., Hobart Town.
 Goldney, Arthur C. N., L.S.A., Hammersmith.
 Gunn, Bassett C. E. F., L.R.C.P. Edin., Rochester.
 Horsfall, Thomas, L.S.A., Masham, Yorks.
 How, George H., M.D., Hayling Island.
 Jackson, John C., Wellington-road, N.W.
 Linney, William W., Haverstock Hill.
 Muriel, Cecil J., L.R.C.P. Lond., Norwich.
 Murray, Horace H. C., Wray-crescent, Tollington-park.
 Orton, Arthur, L.S.A., Foleshill.
 Paterson, William B., Fleet-street.
 Payne, William A., Oswestry.
 Phillips, Frank L., L.S.A., Moseley, Warwicks.
 Phillips, George H., Newcastle, N.S. Wales.
 Richardson, Adolphus J., L.S.A., Sydney-square, E.
 Rowell, Herbert E., Lewisham.
 Swift, Harry, B.A. Cantab., Ely, Cambs.
 Trapp, John B., L.S.A., Bedford.

Five candidates were rejected.

The following were the questions on Surgical Anatomy, and on the Principles and Practice of Surgery, submitted to the candidates (sixty in number) at the written examination on the 14th inst., from 1.30 to 4.30 p.m., when they were required to answer at least four (including one of the first two) out of the six questions, viz. :—1. Describe the antrum of Highmore, and mention the diseases to which it is liable. 2. Describe the knee-joint, and mention those structures which are in immediate relation with it. 3. What are the diagnostic signs and symptoms of an obturator hernia? and what treatment would you adopt under the various conditions it may present? 4. Mention the conditions under which the operation of tapping the abdomen may be required; how these are to be clinically distinguished; how and in which situations the puncture is usually made. To what risks is the patient exposed during the performance of the operation and afterwards, and how may these be avoided? 5. Describe fracture of the clavicle about its middle, the variations which may be found in the displacement, the complications which may attend the injury, the treatment to be pursued, and the result which may be anticipated. 6. Describe the course of sympathetic ophthalmia, and state the measures required for its prevention and treatment. The following were the questions on Midwifery and the Diseases of Women, from 12.30 to 2 p.m.; three out of the four questions were required to be answered:—1. Describe the mechanism of labour with the face presenting, and the chin forward and to the left. 2. What are the dangers attending retroversion of the gravid uterus? How would you treat this condition? 3. Describe the usual course of plegmasia alba dolens? 4. Describe the treatment of post-partum hæmorrhage? The following were the questions on the Principles and Practice of Medicine, from 2.30 to 4.30 p.m.; three out of the four questions were required to be answered, including the fourth:—1. What are the clinical phenomena of locomotor ataxy; and what are the lesions discoverable after death from this disease? 2. What diseases may lead to considerable enlargement of the spleen, and what are their distinctive characters? 3. Discuss the signs and symptoms of thoracic aneurisms, and the several modes in which they may prove fatal. 4. State the effects, uses, and doses of the following drugs:—Tartarated antimony, antimonial wine; arsenious acid, liquor arsenicalis; bicarbonate of potash, effervescing solution of potash; tincture of hemlock, juice of hemlock; tannic acid, glycerine of tannic acid; tincture of Indian hemp, extract of Indian hemp; rhubarb, tincture of rhubarb; compound powder of catechu, tincture of catechu; opium, tincture of opium; chloralhydrate, syrup of chloral.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 13 :—

Benison, William Bedell, Holly Bank, King's Heath.
 Berry, John Bourne, Eagle Lodge, near Galway.
 Bush, James Paul, Bristol Royal Infirmary.
 Horsfall, Thomas, Marsham, Yorkshire.
 Jalland, Robert Wallace, Horncastle, Lincolnshire.

The following gentlemen also on the same day passed their Primary Professional Examination :—

Bernard, Alfred George F., St. Bartholomew's Hospital.
 Deane, Francis, St. Bartholomew's Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

HEWKLEY, FRANK, M.R.C.S., L.S.A.—House-Physician to the London Hospital.

PENNY, EDWARD, M.D., M.R.C.S.—Resident House-Physician to the Seamen's Hospital (late *Dreadnought*), Greenwich, *vice* Le Cronier, resigned.

BIRTHS.

CAUSTON.—On April 11, at 1, Pomona-place, Hammersmith, W., the wife of William H. Causton, M.R.C.S., of a son.

COHEN.—On April 13, the wife of Algernon A. Cohen, M.B., of Burwash, Sussex, of a son.

DAVIS.—On March 15, at Fortress Gwalior, Central India, the wife of Dr. Norman Davis, Surgeon-Major Army Medical Department, of a son.

HANSELL.—On February 27, at Sunnyside, Riversdale, South Africa, the wife of William Charles Hansell, M.R.C.S., of a daughter.

JONES.—On April 16, at The Laurels, Loughton, Essex, the wife of George T. Jones, M.D., F.R.C.S., of a son.

MAY.—On April 16, at 68, Pentonville-road, N., the wife of Edward H. May, M.R.C.S., of a daughter.

ROBERTS.—On April 11, at 6, Eaton-gardens, Ealing, the wife of H. Prescott Roberts, M.D., of a son.

WHITE.—On April 7, at West Knoll, Bournemouth, the wife of Gregory White, M.D., of a daughter.

MARRIAGES.

CRONK—GREGSON.—On April 12, at Highbury, Herbert George Cronk, M.A., M.B., to Emily Kate, daughter of Jesse Gregson, Esq., of 54, Highbury-hill, N.

CULLINGWORTH—FREEMAN.—On Saturday, April 15, at Christ Church, Moss Side, Charles James Cullingworth, M.D., of Manchester, to Emily Mary Freeman, of Southsea, Hants.

DRYSDALE—SPOWART.—On April 12, at Edinburgh, Arthur Drysdale, M.B., C.M., of Dunfermline, to Christian Mary, younger daughter of Thomas Spowart, Esq., of Broomhead.

FIRTH—MARRIOTT.—On April 13, at Swaffham, Norfolk, Eustace Firth, M.B., C.M., of Debenham, Suffolk, to Ellen Maria, eldest daughter of Robert Buchanan Marriott, M.R.C.S., of Swaffham.

GODFREY—WALKER.—On April 18, at Clapham, Benjamin George Godfrey, M.R.C.S., L.R.C.P., of Devonshire Cottage, Balham, to Mary Georgina Annie, daughter of the late James Walker, Esq., of Clapham.

GUY—COMMINS.—On April 12, at Charlton, near Dover, Thomas Guy, M.D., Inspector-General Army Hospitals, to Emma Frances Mary, only daughter of the late Rev. Joseph Eadyean Commins, formerly Vicar of North Shoebury and Little Wakering, Essex.

JACKMAN—STERNE.—On April 15, at Margaret-street, W., Edward Radclyffe, son of T. S. H. Jackman, L.R.C.P., of 11, Stoke Newington-road, London, to Emily, daughter of the late Sslionia Sterne, Esq., of The Lodge, Woodhall Spa, Horncastle, Lincolnshire.

JACKSON—LATTER.—On April 13, at North Kensington, Charles Edward, second son of G. H. Jackson, M.D., late of Tottenham, Middlesex, to Charlotte Fanny, third daughter of Charles Latter, Esq., of Kensal Green.

MOWLL—STEDMAN.—On April 13, at Great Bookham, C. Havelock Mowll, Esq., to Theodosia Mary Savignac, daughter of Arthur Stedman, M.R.C.S., of Great Bookham.

ROBERTSON—DICKINSON.—On April 10, at Genoa, John Robertson, Esq., barrister-at-law, to Caroline Clarissa, daughter of Edward Dickinson, M.R.C.S., of Allassio, and late of Rugby.

SWAINE—WARDROP.—On April 11, at Aberdeen, Charles Lethbridge Swaine, Surgeon Indian Medical Service, to Maude, daughter of Thomas Yuille Wardrop, Esq., of Aberdeen.

WEIR—MEGAW.—On April 13, at Upper Norwood, Walter Weir, M.B., F.R.C.P., to Agnes Howie, daughter of the late J. G. Megaw, Esq., of Windermere House, Upper Norwood.

WRIGHT—HEINTZ.—On April 15, at Ealing, Henry Wright, L.R.C.P., M.R.C.S., of Gainsborough, to Florence Emily, second daughter of Philip Francis Heintz, Esq., of Ealing.

DEATHS.

BRAMLEY, LAWRENCE, F.R.C.S., of 12, Esplanade, Scarborough, formerly of Halifax, on April 8, aged 75.

BROTHERTON, WILLIAM HENRY, M.R.C.S., L.S.A. Lond., L.R.C.P., L.M. Edin., at Graham House, Cambridge-road, E., on April 10.
 FINCH, ALFRED, M.R.C.S., L.S.A., at Stainton Lodge, Blackheath, on April 13, in his 28th year.
 LYCETT, JOHN, M.D., at Torquay Lodge, Falsgrove, Scarborough, on April 8, aged 77.
 POPE, JOHN ROBINSON, M.R.C.S., L.S.A., at Woodridings, Pinner, on April 10.
 WILSON, JOHN GRANT, M.D., at Upper Norwood, on April 13.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon. Candidates must send certificates of registration, and also satisfactory testimonials of ability and good moral conduct. Applications to be addressed to the Secretary of the Hospital, on or before May 4. The election takes place on May 10.

CITY DISPENSARY, 46, WATLING-STREET, E.C.—Surgeon. Applications and testimonials to be forwarded on or before May 5. Further particulars can be obtained at the Dispensary.

CLINICAL HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, PARK-PLACE, MANCHESTER.—House-Surgeon. Candidates must be duly qualified practitioners. Applications, with testimonials, stating age, to be sent to Mr. E. W. Marshall, Secretary, 38, Barton-arcade, Manchester, not later than April 29.

DROVERS' SICK SOCIETY, METROPOLITAN CATTLE MARKET, ISLINGTON, N.—Medical officer. (For particulars see Advertisement.)

NATIONAL DENTAL HOSPITAL, 149, GREAT PORTLAND-STREET, W.—Dental Surgeon. Candidates must be Licentiates of Dental Surgery. Applications with testimonials to be sent to Arthur G. Klugh, Secretary, on or before April 26.

NATIONAL DENTAL HOSPITAL, 149, GREAT PORTLAND-STREET, W.—House-Surgeon. Candidates must possess an L.D.S. degree. Applications, with testimonials, to be sent to the Secretary, Arthur G. Klugh, on or before April 26.

SUNDERLAND INFIRMARY.—Junior House-Surgeon. Candidates must possess double qualifications. Applications, with testimonials, to be sent to the Chairman of the Medical Board on or before April 27.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Easingwold Union.—Mr. Edward Buller Hicks has resigned the Workhouse: salary £16 per annum.

Hexham Union.—Mr. F. J. Cropp has resigned the Allenheads District: area 4748; population 2027; salary £17 per annum.

Manchester Township.—The Office of Resident Assistant Medical Officer at the Crumpsall Workhouse is vacant by the resignation of Mr. John Henry Pettinger: salary £140 per annum and residence.

APPOINTMENTS.

Bingham Union.—Charles Rowland, M.R.C.S. Eng., L.S.A., to the Workhouse.

Carlisle Union.—Thomas H. Conway, L.R.C.P. Edin., L.F.P. & S. Glasg., L.S.A., to the Wetheral District.

Gravesend and Milton Union.—George H. Harvéy, M.R.C.S. Eng., L.S.A., B.M., M.C. Aber., to the Milton District.

Hexham Union.—Robert Elliott Huntley, M.D. Edin., M.R.C.S. Eng., L.S.A. Lond., to the Fourth District.

Llanfyllin Union.—Frederick Felix Jones, M.R.C.S. Eng., L.S.A. Lond., to the Llanfyllin District.

Salford Union.—John Henry Morris, M.R.C.S. Eng., L.S.A., to the Fourth District.

Weobley Union.—Peter B. Giles, M.R.C.S. Eng., L.S.A., L.R.C.P. Edin., to the Wyeseide District.

Workshop Union.—Alfred Ward, M.B., C.M. Edin., to the Anston District.

NEW MODE OF APPLYING CHRYSOPHANIC ACID.—Dr. George Fox, of New York, observes that no recent addition to dermatological therapeutics can compare in value with chrysophanic acid, which, when applied externally, removes with surprising rapidity the most inveterate psoriasis, and proves of value in other cutaneous affections; but its action is difficult of control. It is very apt to produce a severe and unexpected dermatitis, and almost certain to ruin the under-clothing and bed-linen of the patient. Dr. Fox endeavours to obviate these inconveniences by making a soft paste by rubbing the acid with a sufficient quantity of water, and smearing this on the psoriatic patches, the scales of which have been previously removed by one or more hot baths with soap friction. As soon as the paste has dried, which it does in one or two minutes, a layer of collodion should be let flow over each patch and harden into a protective coating. This will continue on for several days, and when it falls or is washed off the paste and collodion should be repeated. In this way the action of the chrysophanic acid is limited to the diseased spots. A somewhat similar plan consists in the use

of gutta-percha tissue to retain a strong chrysophanic ointment in contact with the patches. The edges of this tissue will adhere tightly to the skin if a small camel's-hair brush, dipped in chloroform, is passed rapidly beneath them.—*Philadelphia Medical News*, March 18.

SHARP DEALINGS WITH INDECENT ADVERTISERS AT PITTSBURG, PENNSYLVANIA.—Several doctors, sham doctors, druggists, etc., have lately been arrested at Pittsburg, for contravening the law against advertising drugs, nostrums etc., for secret diseases. Dr. Hartmann, a graduate of Bellville, and his father, Dr. Hartmann, were among those charged with advertising remedies for "sexual debility, etc.," and were only let off by paying fees and costs, and publishing in the daily papers a "card" promising to cease distributing pamphlets recommending nostrums for female diseases, etc. A druggist and ex-President of the College of Pharmacy was also convicted, and published a "card" in the papers, pleading his ignorance of the law and promising not to offend again. A Dr. George was lodged in gaol in default of bail, and having pleaded guilty, paid a fine on two charges, and promised to mend his ways.—*Phil. Med. News*, February 4.

APPOINTMENTS FOR THE WEEK.

April 22. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Mr. F. Pollock, "On the History of the Science of Politics."

24. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. Balmanno Squire will show a Patient whom he has treated for Lupus. Mr. Henry Morris, "On Ichthyosis and Cancer of the Tongue." Dr. Richard Schmitz (of Neuenahr), "Experiences of Six Hundred Cases of Diabetes Mellitus."

25. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Dr. E. B. Tylor, "On the History of Customs and Beliefs."

ANTHROPOLOGICAL INSTITUTE, 8 p.m. General Pitt Rivers, F.R.S. (President), exhibition of Pottery from Silesia. Mr. E. H. Man, "On the Aboriginal Inhabitants of the Andaman Islands—Part II."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. T. Holmes, "On Wounds of the Theca Vertebralis, with Discharge of Cerebro-spinal Fluid." Mr. R. W. Parker, "Suggestions for the Treatment of Special Cases of Empyema by Thoracentesis and the Simultaneous Injection of Purified Air."

26. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

27. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Dewar, "On the Metals." HARVEIAN SOCIETY, 9 p.m. Mr. Malcolm Morris, "On the Treatment of Severe Acne Rosacea by Scarification." Mr. Cripps Lawrence, "On Rotheln."

28. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

QUEKETT MICROSCOPICAL CLUB (University College), 8 p.m. Ordinary Meeting.

CLINICAL SOCIETY OF LONDON, 8½ p.m. Mr. Pearce Gould, (1) "On a Case of Spina Bifida Cured by Injection of Iodine"; (2) "On a Case of Congenital Intestinal Obstruction." Dr. de Havilland Hall, "On a Case of Primary Perichondritis of Larynx." Dr. Hector Cameron (of Glasgow), "On Cases of Antiseptic Ligation of Arterial Trunks in their Continuity." Dr. Stowers will exhibit a Case of Acne Varioliformis.

ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Professor Abel, "On some Dangerous Properties of Dusts."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 15, 1882.

BIRTHS.

Births of Boys, 1322; Girls, 1207; Total, 2529.
Corrected weekly average in the 10 years 1872-81, 2693·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	865	862	1727
Weekly average of the ten years 1872-81, } corrected to increased population ...	893·1	839·1	1732·2
Deaths of people aged 80 and upwards ...	...	...	50

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	11	1	3	15	...	...	...	...	2
North ...	905947	1	4	5	7	27	...	8	...	4
Central ...	282238	...	1	...	5	11	...	3	...	1
East ...	692738	...	10	6	5	40	...	5	...	1
South ...	1265927	7	23	11	8	62	...	6	2	1
Total ...	3816483	8	49	23	28	155	...	22	2	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	...	29·544 in.
Mean temperature ...	...	...	...	...	...	...	47·6°
Highest point of thermometer ...	...	...	...	...	...	...	59·5°
Lowest point of thermometer ...	...	...	...	...	...	...	33·2°
Mean dew-point temperature ...	...	...	...	...	...	...	41·4°
General direction of wind ...	...	...	...	...	...	...	Variable.
Whole amount of rain in the week ...	...	...	...	...	...	...	0·37 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the
Week ending Saturday, April 15, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending April 15.	Deaths Registered during the week ending April 15.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3893272	2529	1727	23·1	59·5	33·2	47·6	8·67	0·37	0·94
Brighton ...	109595	67	68	32·4	60·0	37·0	47·2	8·44	1·08	2·74
Portsmouth ...	129918	76	79	31·7	...	...	...	...	...	...
Norwich ...	83821	55	46	27·0	...	...	...	...	...	...
Plymouth ...	74449	38	36	25·2	60·2	35·0	48·4	9·11	1·21	3·07
Bristol ...	210134	120	103	25·6	56·2	33·4	46·4	8·00	0·66	1·68
Wolverhampton ...	76756	59	49	33·3	58·3	29·8	45·3	7·39	0·41	1·04
Birmingham ...	408532	298	191	24·4	...	...	...	...	...	...
Leicester ...	126275	71	49	20·2	...	...	...	...	...	...
Nottingham ...	193573	129	90	24·3	63·5	30·9	46·1	7·84	0·55	1·40
Derby ...	83587	55	27	16·9	...	...	...	...	...	...
Birkenhead ...	86532	55	32	19·3	...	...	...	...	...	...
Liverpool ...	560377	388	287	26·7	...	...	...	...	...	...
Bolton ...	106767	70	61	29·8	57·5	31·0	43·4	6·33	1·89	4·80
Manchester ...	340211	251	225	34·5	...	...	...	...	...	...
Salford ...	184004	153	98	27·8	...	...	...	...	...	...
Oldham ...	115572	78	61	27·5	...	...	...	...	...	...
Blackburn ...	106460	80	57	27·9	...	...	...	...	...	...
Preston ...	97656	60	49	26·2	...	...	...	...	...	...
Huddersfield ...	83418	40	41	25·6	...	...	...	...	...	...
Halifax ...	74713	60	31	21·6	...	...	...	...	...	...
Bradford ...	188101	100	84	23·3	59·0	34·6	43·7	6·50	1·54	3·91
Leeds ...	315998	227	134	22·1	59·0	33·0	45·1	7·28	1·29	3·28
Sheffield ...	290516	196	105	18·9	57·0	31·5	43·2	6·22	1·00	2·54
Hull ...	158814	131	62	20·4	56·0	30·0	42·9	6·06	1·73	4·39
Sunderland ...	119065	70	79	34·6	56·0	33·0	42·3	5·73	1·64	4·17
Newcastle ...	147626	91	53	18·7	...	...	...	...	...	...
Cardiff ...	86724	59	32	19·3	...	...	...	...	...	...
For 28 towns ...	8457514	5606	3956	24·4	63·5	29·8	45·1	7·28	1·11	2·82
Edinburgh ...	232440	152	95	21·3	49·8	28·5	39·8	4·34	1·08	2·74
Glasgow ...	514048	441	271	27·5	52·0	28·5	41·3	5·17	0·55	1·40
Dublin ...	348293	189	189	28·3	59·6	29·8	44·3	6·84	1·22	3·10

At the Royal Observatory, Greenwich, the mean reading
of the barometer last week was 29·54 in. The highest reading
was 30·14 in. at the beginning of the week, and the lowest
28·87 in. on Thursday evening.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Australia.—The Victorian Government has determined to introduce a Bill
next session to restrict, if not altogether to prohibit, the importation
of dangerous explosives into the colony.

Medical Fees on the Continent.—In Germany and France respectively
2 marks and 2 fr. are, it is stated, the medical charge for a visit,
excepting in the fashionable watering-places.

An Old Offender.—A milk dealer at Stockton-on-Tees, who has been re-
peatedly fined for adulteration, was last week amerced in £10 and
costs for refusing to supply the inspector with some milk for analysis.
He served him with a pint from one of the two cans he was carrying,
but refused to let him have any from the second, and threw away its
contents.

Citizen.—The actual sum expended by the Corporation of London in
acquiring Epping Forest for the use of the public is said to be upwards
of a quarter of a million sterling.

London Bakers.—Mr. Lakeman, one of Her Majesty's Inspectors of Fac-
tories, in his report on London bakehouses, discloses the existence of
abominations and objectionable filthy practices, the inspection of which,
as he truly remarks, "for humanity's sake they (the inspectors) should
not regret has been added to their duties." It appears that "Germans
are gradually becoming the bakers of London, and they, in many cases,
for want of enlarged means, neglect those rules which the inspectors are
called upon to enforce; the workman is a counterpart of his master, for
as the one is careless, so is the other." He adds, in conclusion, he has
also seen an open drain, two feet square, into which liquid from adjoining
premises flowed, over which tins of buns were laid to cool. He
trusts on his next visit to find the many defects and neglect of cleanli-
ness have been properly attended to, and the objectionable practices
relinquished.

Ice.—It is stated that in consequence of the mild winter the supplies of
ice from Northern Europe have this year fallen greatly short of the
demand, and that the wholesale price has risen from 15s. a ton—the
average of the past two seasons—to close on 45s.

Baby Farming, Hackney.—Mary Ann Waller, of Hackney Wick, has been
sentenced to six months' hard labour for infringing the Infant Life Pro-
tection Act by keeping two infants when she was only legally entitled to
keep one, and for neglecting and cruelly treating these children.

A Fatality from eating Periwinkles.—At an inquest held at Whetstone
touching the death of a young man, it appears that the fishmonger who
supplied the deceased with some periwinkles had kept them two or
three days before he boiled them, but they were regularly fed, and
according to the evidence, were alive and fresh at the time he put them
into the cauldron. None of his customers had complained of any ill
effects from eating them. Dr. Danford Thomas explained that although
periwinkles are nutritious enough for some people, for others they are
quite the reverse. A verdict of "Death from acute indigestion, caused
by eating periwinkles," was returned.

Ignoramus.—The word "insurance" is universally applied to fire and ship-
insurance; but for many years "assurance" has been commonly used
in cases where life is concerned. The operations in both cases are
fundamentally the same.

Sanitation and the Results.—Mr. Edwin Chadwick, the well-known sanitary
reformer, makes some rather striking observations on this subject, which
are noticeable for their significance. He states that in Glasgow, on the
evidence of the Medical Officer of Health of that city, 10,000 lives have
been saved during the past ten years "through reductions of over-
crowding, more efficient scavenging, and other sanitary work, by which
all forms of zymotic or foul-air diseases have been reduced." In
addition to the moral advantages obtained, £250,000 has been saved to
the inhabitants of Glasgow in doctors' and undertakers' bill during the
decade. Satisfactory as this may be, the death-rate of Glasgow is still
26 per 1000—a high mortality in comparison with many other cities.

Ventilation of Drains: Brighton.—The Town Council of Brighton have de-
cided that in future they will not approve plans for any new buildings
which do not provide for the proper ventilation of the drains in
accordance with the requirements of the 26th by-law.

Remarkably Low Death-Rate.—The Medical Officer of Health, St. Andrew's,
in his annual report recently issued, states that the death-rate for 1881
was lower than it had been for the past eleven years, being only 12·24
per 1000. In comparison with other Scotch towns, this city stands first
on the list in regard to the death-rate, and this remarkable fact is
largely due to the healthy situation of the town.

St. John Ambulance Association.—During the past three months over three
hundred pupils have been instructed on the Riviera. A regular centre
will be formed next winter, of which Lord Brougham will become presi-
dent, and Colonel Cragg, late Rifle Brigade, Hon. Secretary.

A Sad Occurrence.—A medical student at Edinburgh University, residing at Hill-place, Edinburgh, has committed suicide by cutting his throat with a razor. He was twenty-five years of age, and the son of a medical practitioner in Birmingham. It is understood the cause of death was overwork in connexion with his examinations.

Defective House-Plumbing reduced to a Minimum.—A system of house-drainage appears to have been adopted on the Telford Park Estate, Streatham Hill, by which, it is stated, any risk from defective plumbing has been reduced to a minimum, and the scheme has been invariably successful, not only in keeping the interior of the house absolutely free from sewer-gas, but also in limiting the results of any accidental drain-stoppage to the exterior of the dwelling, where it can be readily got at, and removed without risk or inconvenience. The arrangements are these:—1. No drains, if possible, to be laid under the house. 2. The waste and soil pipes to go straight through the nearest external wall, and to discharge into a trapped hopper, totally disconnecting the house-pipes from the external drains. 3. No other pipe whatever to be connected with the soil-pipe, which should be carried up its full size outside, to a point above the highest window, for ventilation.

Smoke Abatement, Manchester.—Lord Derby writes to the local committee of the Smoke Abatement movement in that city:—"I sincerely hope that the exhibition may be the means of calling public attention to a nuisance with which habit has made us in the North so familiar that we hardly appreciate its magnitude. You cannot possibly find a subject of greater importance to deal with, nor one in connexion with which there is more useful work to be done."

The Port of London Sanitary Work.—The official report for the last six months of the year 1881 shows that sanitary inspection has been well and carefully done. During the last half-year, for instance, close upon 13,000 vessels were inspected—the largest number ever examined in the course of six months. As a consequence of this more rigorous and systematic inspection, the percentage of vessels which require cleansing is constantly diminishing. It appears that of 16,341 vessels inspected in the year 1880, 583 required to be cleansed; but of the 22,315 inspected last year, only 428 wanted cleansing. The vigilance of the sanitary officers of the port, no doubt, tends to prevent as well as to detect the agencies of infection.

An Urban Sanitary Authority Fined.—The Local Authority at Staines has been fined £10 and costs for neglecting to comply with a notice served upon it by the Thames Conservators to stop sewage from flowing into the river at the foot of Church-street, Staines. This Authority was amerced in a similar amount in September last for the nuisance, and was allowed three months to discontinue it, but nothing had been done.

Urban and Rural Sanitary Works.—The Somersetshire Drainage Commissioners have appointed a committee to inquire into the state of the river Parrett and its tributaries, and to report their proposals for improving the general drainage of the district. —The Metropolitan Board of Works have decided to contribute £20,000 towards the cost of the contemplated improvement at Hyde Park Corner. —The drainage works on Wormwood Scrubs are now completed. —The Salop and Montgomery Counties Pauper Lunatic Asylum, at Bicton, near Shrewsbury, is about to be extensively enlarged. The proposed additions include male and female wings for 200 patients. —A cottage hospital is nearly completed at Batley, at a cost of about £8000. —After much delay and opposition, public baths are to be erected at Battersea. The Vestry has sanctioned the Commissioners borrowing £25,000 for the purpose; but the erection of washhouses in connexion with this undertaking has for the present been abandoned. —To meet the increasing requirements of the population, the Royal Infirmary at Liverpool is about to be rebuilt at an estimated cost of £100,000. —The County and City Asylum at Hereford is about to be enlarged. —A Local Government Board inspector has held an inquiry at Stretford as to an application for a loan of £25,000 for sewerage works and sewage disposal, and also for a loan of £10,000 for providing a cemetery. —The new works of main sewerage at Eastbourne have been formally inaugurated on completion. The "Shone" system has been adopted.

Sophistication: America.—A report of the House Committee appointed by the United States Congress to inquire into matters connected with the commerce of the country states, on the subject of adulteration, that of eighteen samples professing to be cream of tartar—an article generally used in bread-making—only six were pure, the remainder containing lime in large quantities up to 90 per cent., while in two there was absolutely no cream of tartar at all! The ingredients of adulteration of black pepper consist of baked flour, rice, sago, potato, starch, brown and white mustard, wheat, bran, flour, oatmeal, ground gypsum, wood, and sand. In teas were mixed blacklead, indigo, Prussian blue, chrome yellow, venetian red, carbonate of copper, and arsenite of copper. In a large variety of other articles analysed, no more satisfactory result was obtained.

A Testimonial.—Mr. James King, Sanitary Inspector of Hove, next Brighton, has been presented with a testimonial, consisting of a gold watch with chain, value fifty guineas, three vases, and an inlaid side-table, in recognition of his services during the recent epidemic at Hove.

COMMUNICATIONS have been received from—

Mr. CHARLES HIGGINS, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN; Messrs. CUXSON and Co., Wednesbury; Messrs. JARROLD and Son, Norwich; Dr. F. M. NEWCOME, London; THE REGISTRAR OF THE UNIVERSITY OF DURHAM; THE SECRETARY OF THE STATISTICAL SOCIETY, London; Mr. CLEMENT LUCAS, London; THE SECRETARY OF THE SAMARITAN HOSPITAL, London; THE SECRETARY OF THE SEAMEN'S HOSPITAL, Greenwich; Messrs. JONES and BARKER, London; Mr. SHIRLEY MURPHY, London; Messrs. CHRISTY and Co., London; Dr. EWART, London; Dr. P. W. LATHAM, Cambridge; Mr. W. P. DOLBY, Stamford; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Messrs. HARRISON and BRASS, Elgin; Mr. T. M. STONE, London; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE MEDICAL SOCIETY OF LONDON; THE SECRETARY OF THE HARVEY SOCIETY, London; THE SECRETARY OF THE ANTHROPOLOGICAL SOCIETY, London; THE SECRETARY OF THE QUEKETT MICROSCOPICAL SOCIETY, London; THE SECRETARY OF THE SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN, London; THE SECRETARY OF THE PHARMACEUTICAL SOCIETY, London; Mr. MARK H. JUDGE, Parkes Museum, London; THE SECRETARY OF THE ODONTOLOGICAL SOCIETY, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; THE SECRETARY OF THE CLINICAL SOCIETY, London; THE SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY, London; Dr. WILLOUGHBY, London; Mr. R. FITZROY BENHAM, London; THE SECRETARY OF THE STATISTICAL SOCIETY, London; Dr. CRICHTON BROWNE, London; Mr. KNOWSLEY THORNTON, London.

BOOKS, ETC., RECEIVED—

The Supply of Water to our Homes, by Robert Fitzroy Benham, M.R.C.S. —Modern Meteorology, by Lewis D'A. Jackson—What to do in Cases of Poisoning, by William Murrell, M.D., M.R.C.P.—Diseases of Children, by J. Forsyth Meigs, M.D., and William Pepper, M.D., LL.D.—Cornil and Ranvier's Pathological Histology, translated by A. M. Hart—L'Hypermégalie et la Paralysie de la Luette et leur Influence de la Voix, par Charles Labus—Congrès International de Laryngologie, Première Session, Milan, Septembre, 1880—Rivers and Broad's of Norfolk and Suffolk, by Christopher Davies—Report on the London Water-Supply—Albuminurie, von Dr. H. Senator—De la Lithotritie Rapide, par le Dr. Reliquet.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Ciencias Medicas—Philadelphia Medical News—Revista de Medicina—Medical News—Ilkley Gazette—Revue de Chirurgie—Gardeners' Chronicle—North American Review—Revue des Sciences Médicales—Journal of the Vigilance Association—Medizinal-Anzeiger—Journal of the British Dental Association—Chicago Medical Review—Archives of Medicine—Weekblad, April 8 and 15—Journal of Anatomy and Physiology—

SMALL-POX LEGISLATION IN NEW SOUTH WALES.—The *Australasian Medical Gazette* for January last congratulates the people and Legislature of New South Wales on the passage through the local Parliament of the "Act to make further provision to prevent the spread of small-pox." The *Gazette* looks upon this Act as the embodiment of the best means, next to an efficiently carried out Compulsory Vaccination Act, to stamp out the constantly encroaching attacks of the disease. The penalty for concealment of any case varies from not less than ten pounds to not more than fifty; this, at first glance, may seem excessive, but the importance of early information of any outbreak must be universally recognised. Since the first appearance of small-pox in Sydney, about 33 per cent. of the persons attacked have died, and the percentage of unprotected persons throughout New South Wales, where vaccination has been performed in a very irregular manner, must be high, and the danger correspondingly great. Many of the public and some of the profession were so depressed by the constant recurrence of fresh cases that they were inclined to despair, and to be indisposed to make further efforts to suppress the epidemic. The new Act, it is hoped, will now have the effect of checking all this; and had the Government, in following the recommendations of the profession, also passed a Compulsory Vaccination Act, there would be no doubt that small-pox would eventually have been eradicated. The colony of New South Wales, the *Gazette* thinks, has been too long domineered over by unscientific pretenders to medical knowledge, but it hopes that, at the next meeting of Parliament, a series of useful measures may be brought forward by the Government to deal with both sanitary and medical matters. It looks forward to a Compulsory Vaccination Act, an amended Medical Act, and a Public Health Act, together with other measures for the preservation of the lives and health of the community in the different Australian colonies.

ORIGINAL LECTURES.

THE CROONIAN LECTURES
ON
THE CLIMATE AND FEVERS OF INDIA.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., etc.

LECTURE I.—PART II.

THE ETIOLOGY OF FEVERS.

Theories of Origin of Malaria—Nature and General Characters of Country.

INDIA represents almost every variety and condition of soil and climate. The more special causes of disease, which in our ignorance of their real nature we call malaria, everywhere exist—in certain regions more intensely than in others. The low-lying jungle-land, where the subsoil moisture is near the surface, at the foot of the Himalayas, known as the Terai, abounds in it; and the alluvial basins, silted-up beds and debouchures of rivers, water-logged soil of land in which watercourses have been obstructed, littoral plains, in some regions sandy deserts, alike seem to produce it. There are regions that have formerly been populous, now deserted, and given up to wild beasts and malaria, which probably desolated them. Such are the ancient city of Goa, and other cities of which the ruins are hardly to be traced in dense jungle.

Let me here observe that much is often attributed to climate which is more properly chargeable to defective hygiene and careless mode of living. Malaria prevails almost universally in India; at all events, periodic fevers occur everywhere, and there are extreme vicissitudes of temperature and endemic causes of dangerous disease. But with due care, temperate living, and ordinary precaution as regards exposure to heat and to obvious causes of disease, the climate itself is less noxious than may be supposed. Let it be remembered that sanitary work, by removing these preventable causes, has already reduced the death-rate of European soldiers in India from sixty to sixteen per 1000, and that it is proving gradually as beneficial to the civil population.

MacCulloch says: "Perhaps the best, as the truest, account of the nature of malaria would be an acknowledgment of utter ignorance" ("On Malaria," page 419); and I fear we have not much to add to this description of a hypothetical cause of disease which is of very general prevalence, according to Lombard, between the 65th parallel of north and the 25th or 30th of south latitude, and which has baffled and puzzled mankind as to its nature since the earliest days of medical science, but is well known by its effects on human health and life, these effects being manifested in all climates whenever certain conditions favourable to their development are called into existence, and varying in intensity from the deadliest fever to the most transient disturbance of the general health. It has been estimated to cause half the mortality of the human race, and has been called "the great enemy, the very destroying angel to whom the task of keeping man within bounds has been specially assigned" (MacCulloch "On Malaria," page 453).

In tropical climates it attains its greatest intensity, is the cause of several forms of fever, and seems to be intimately connected with the etiology of cholera, dysentery, hepatic disease, bowel complaints, and other morbid conditions; but in temperate, even cold climates, under certain conditions, its effects are manifested. It abounds in Southern Europe, and our own islands are not exempt; though the agues that prevailed in London in Sydenham's time are now—thanks to sanitary science—matters of history; but its influence still lingers in certain districts, in the eastern or southern counties, such as the fens of Lincolnshire, the marshes of Essex or Kent; whilst the writings of Pringle, Fergusson, G. Blane, MacCulloch, and many others describe its effects in Europe as being formerly of great severity.

The records of the London Hospital show the diminution that has taken place during the past century in malarial disease

in its neighbourhood, and prove also that subsoil, sewer and surface drainage, better living, with other sanitary improvements that have been in progress, have nearly extinguished malaria.

Before Hippocrates wrote on epidemics it was known that people who lived in marshy districts were liable to suffer from intermittent fever. But it was not until the end of the seventeenth century (1695) that Lancisi, in Rome, wrote his great work on marsh exhalations, in which he pointed out their connexion with these fevers, and called them paludal or marsh miasmata. The term is still in use, though the modern "malaria" is more generally preferred; that of paludal being apt to mislead, by indicating marshes as the only cause, whereas paroxysmal fevers are often seen on a dry, sandy, and rocky soil, where no marsh exists. Still, experience teaches that for their production the presence of moisture, organic matter, and a temperature above 60°, is generally requisite. Whatever be the cause, it is abundant in India, both in marshy and jungly, and in arid and elevated regions.

In 1866, Dr. Salisbury, an American physician, thought he had discovered it in a palmella associated with cells and sporules of other fungi, though the latter were not constant, to which he gave the name of gemiasma or ague plants. He said he found that individuals who slept in a room in which earth containing these sporules was placed, contracted fever, though they were five miles distant from any other known source of malaria; he repeated the experiment with similar results. This view of malaria seems soon to have been consigned to oblivion, though a vague impression remained that organic germs might have something to say to it.

The subject has recently been revived by Klebs, Tommaso-Crudelli, and others. In the year 1879 they announced the discovery, in the soil, water, and air of the Roman Campagna and marshes, of germs or sporules, which are capable, under the influence of warmth above 20° Cent., moisture, and air, of rapidly developing into sporigerous bacilli (the absence of any one of these conditions is fatal to their development); and it is stated (*Medical Times and Gazette*, January 17, 1880) that the bacilli or spores have been found in the marrow of bones, the spleen, and blood of persons dying of pernicious fever.

Lanzi, Terrigi, Marchiafava, Cuboni, and some French observers in Algeria, confirm these observations. They say they have been able to communicate true malarial fever to dogs and rabbits, by inoculating them with blood taken from malaria patients. They have found the bacillus in the blood of malarial cases, sporadic cases also, a constant fact. It is found in great quantities in the blood during the cold stage, but it disappears in the hot stage almost totally, leaving only traces of its spores, which in their turn produce a second generation of parasites. Lanzi, of Rome, says he observed the same fact in the blood of twelve patients in the Hospital of S. Giovanni in Laterano. Following on this, Professor T. Crudelli has suggested that arsenic should be used as a prophylactic to render the human organism insensible to malaria.

Laveran(a) has found organisms in the blood of malarial subjects—cylindrical curved bodies, pointed, transparent, but with a pigmented spot, without movement; also cylindrical bodies, about the diameter of a red corpuscle, containing pigment granules, presenting rapid movements. On the borders of the spherule were filaments in rapid movement, three or four times the length of the diameter of the corpuscles. There were also bodies of spherical or irregular form, transparent or finely granular, about the hundredth of a micro-millimetre in diameter, containing dark-red, rounded pigment grains; they were motionless, and appeared to be the ultimate stage of the above, had no nuclei, and did not tint with carmine like pigmented leucocytes. Spherical elements, similar to the last, but smaller in size. The animated nature of the mobile pigmented spherules with filaments appears indisputable.

Laveran regards them as a form of animalcule, which exists at first in an encysted state, and in the perfect condition becomes free in the form of mobile filaments. Further, the blood of malarial fever persons contains—1. Red corpuscles, which appear to be vacuolated at one or two spots, and contain pigment granules; 2. Pigmented leucocytes;

(a) *Lancet*, November 12, 1881.

3. Free pigment granules, probably proceeding from the destruction of the parasitical organisms; he discovered them about fifteen months ago; but since has found them in 180 of 192 persons affected with various symptoms of malarial poison in Algeria and Tunis. He is convinced that they are not found in the blood of persons suffering from diseases not of malarial origin. In the malarial cases where they were not found, it was when quinine had been previously taken. The addition of a small quantity of quinine to the blood destroyed the organisms. He thinks that during a pyrexial period the organisms probably sojourn in the internal organs, especially in the spleen and liver. After death from malarial disease, pigment granules are found in great numbers in the blood, and especially in the small vessels of the liver and spleen; even the marrow of bone and the brain-substance are discoloured by their presence. These pigment granules, which may obstruct the capillary vessels, appear to be derived from the parasitic elements, which perish after death and become unrecognisable. This also, I think, we must accept with reserve, but there is no doubt that micro-pathology is making wonderful advances, and that it is opening up new possibilities daily as to the origin of disease. In reference to the relation of minute organisms to the etiology of certain forms of disease, I remarked years ago that "when infection has occurred, we need some effective parasiticide. It may be that some of the antiperiodic remedies—quinine, arsenic—have owed some part of their virtues to anti-hæmatozoal properties." I was referring to the *filaria sanguinis hominis* of Lewis and Manson, but if Laveran's discoveries be confirmed, the remarks would apply to them also. We seem to be on the threshold of discovery of unknown and almost unsuspected disease-causes, and watch the progress of investigation with great interest. One cannot help wondering where Crudelli's bacilli were in Laveran's cases; he does not appear to have seen them. I think we can hardly avoid a little scientific scepticism in these matters yet.

Kelseh and Kiemer found that in the liver and blood of Algerian patients dying of malarial eachexia the red corpuscles became larger and their number diminished. In a case of quotidian ague there was a loss in twenty-four hours of more than one million red corpuscles per cubic millimetre of blood. In profound anæmia the number may fall from five millions to less than one and half million.

In the liver there is dilatation of the capillaries with endothelial proliferation in the walls; leucocytes and pigment cells lodge in them. Hepatic cells become hypertrophied, and increased in number. There is distension of lymphatic spaces, and sometimes commencement of annular cirrhosis, these conditions tending to become chronic. (b)

At the meeting of the British Medical Association at Cambridge, specimens of bacillus malarie were shown by Dr. L. Aitken, of Rome. (c)

These important and interesting researches, if confirmed, will solve a hitherto unexplained problem.

Dr. Sternberg, of the United States Army, has made experiments on the soils, water, and air of New Orleans, and is unable to confirm the views of Klebs and T. Crudelli. He found that a great number of minute algæ, including bacteria of various forms, do exist on the surface of the swamp mud, that they could be cultivated in isinglass, which then acquired pathogenetic properties. Some of the organisms found in swamp mud and gutter water, and in human saliva, are capable of multiplying within the body of an animal; and the blood, serum, and organs containing them acquire virulent properties. Among the organisms found in swamp mud are some which closely resemble, perhaps are identical with, the bacillus malarie of Klebs and Crudelli. Still, there is no conclusive evidence that these or any other of the minute organisms found in such situations, when injected beneath the skin of the rabbit, give rise to a fever corresponding with the ordinary paludal fevers to which man is subject. The evidence on which Klebs and Crudelli have based their claim to the discovery of

a bacillus malarie cannot be accepted, because in these experiments, as in his own, the temperature curve of the rabbits operated on has in no case exhibited a marked and paroxysmal character; because healthy rabbits sometimes exhibit diurnal variations of temperature as marked as those shown in their charts; because changes in the spleen, such as they describe, are not evidences of death from malarial fever, inasmuch as similar changes occur in the spleen of rabbits dead from septicæmia produced by the subcutaneous injection of human saliva; because the dark-coloured pigment in the spleen and marrow of bone cannot be taken as evidence of death from malarial fever, inasmuch as this is frequently found in the spleen of septicæmic rabbits. He adds, however, there is nothing in his own researches to prove that the so-called bacillus malarie, or some other minute organism associated with it, is not the active agent in the causation of malarial fevers in man; and that there are many circumstances in favour of the hypothesis that the etiology of these fevers is connected, directly or indirectly, with the presence of these organisms or their germs in the air and water of malarial localities. He suggests the expediency, as the disease is not of a fatal character, that the *experimentum crucis* should be made on man himself. It certainly seems unsatisfactory to argue from the rabbit to the man, especially in the case of a poison to which, whatever its nature may be, the lower animals are of doubtful susceptibility.

The researches of Klebs, Crudelli, and others do, however, offer an explanation which appears to correspond with what we know of the mode of operation of malaria. *First.* That it occurs at certain heights, and that it is not necessarily connected with the presence of marshes, ponds, or rivers, nor with admixture of fresh or salt water, nor with the putrefaction of an organic substance.

Second. That the production of malaria ceases when the air can no longer act on the soil, as when the most pestilential marshes cease to be so when there is plenty of water, or when the air is excluded by any interposing substance.

Third. That a very moderate degree of humidity will produce malaria—some malarial soils, innocuous during hot and dry weather, becoming dangerous after a shower, and so in the case of the upturning of new ground or the cutting down of jungle.

If these views be confirmed by further observation, a great acquisition will indeed have been made to our knowledge—one as important as that which revealed the true etiology and pathology of continued fevers in Europe.

But in our natural anxiety to find a particulate origin for the poison or germ, we must not overlook the possibility that the results attributed to the so-called malaria may be due to other agencies—some gaseous emanation, or perhaps an impression produced on the organism from without, inducing disturbance of the innervation, vaso-motor action and nutrition, or the autogenetic production of a poison in the body predisposed to be so deranged by peculiarity of constitution, climatic or other influence, of the nature of which we are ignorant—though by analogy it is conceivable; as, for example, the origin of influenza, the derangements arising from emotional states, like joy, fear, etc. Some such view has been held by men who find it difficult to reconcile the phenomena and facts with the operation of a specific poison.

Great diurnal range of temperature, vicissitudes of climate, fatigue, hunger, exhaustion, combined with local causes that predispose to enfeebled health, have been, and are, considered by some as sufficient to account for the phenomena.

Surgeon-Major Oldham, of the Bengal Medical Service, attributes it altogether to alternations of temperature in persons weakened by tropical influences. Dr. Lyons, of the same Service, says, "The opinion that intermittent is due to miasm is not applicable." Dr. Bellew ascribes fevers in the first instance to chill. All this would imply that malaria as an entity has no existence. (d) Others have expressed

(b) Lyman in "Ziemssen's Cyclopædia."

(c) In the *British Medical Journal* of December 10, 1881, Dr. MacMunn, of Wolverhampton, gives an account of his discovery of bacillus malarie in the blood of a young African traveller who was suffering from intermittent fever. The blood was taken during the cold stage, and examined with a $\frac{1}{16}$ immersion. The bacillus malarie was seen most distinctly by himself, the patient, and another medical man. The cold was followed by the hot and sweating stage, so that there was no doubt as to the nature of the disease.

(d) Deputy Surgeon-General Moore, of the Bombay Medical Service, an able and keen observer, after a long and interesting summary of the facts, says:—"The practice of regarding so many fevers as malarious has tended very much to the retention of malaria as a presumed entity, and as a specific cause of disease, also to its being confused with climatic influences"; and that the writer tends to the belief that so-called malarious maladies are due to atmospheric vicissitudes rather than to any specific poison, or, in the language of an old Indian colonel:—"You doctors may talk of marsh poison as you like, but my experience has taught me that hot days and cold nights are certain to produce fever."—*Indian Medical Gazette*, November 1, 1881.

similar views,—even Dr. Parkes considered that “some alteration must be made in the prevalent opinion of the action of malaria”; and, indeed, there is much in observation of disease in India to support this view, for such extremes are fertile sources of fever; though it is doubtful if they are adequate to produce periodic fevers in those who have not previously been exposed to certain other—i.e., malarial—influences. A native of India will get a severe attack of ague if exposed to the chill night-air in the cold season, especially after a hot day; but though it take the form of ague, it may pass away, not to return till he be again exposed under similar conditions.

The most careful examination has failed altogether to detect any chemical product or separate active principle, though it has been shown that the air of marshes contains a variety of products that are absent from the normal atmosphere, e.g., excess of carbonic acid 6 to 8 per 1000 volumes; sulphuretted hydrogen, phosphuretted hydrogen, watery vapour, ammonia, free hydrogen, organic matter, and the microscopical *débris* of vegetable and animal matter diffused throughout it. One or other or several of these may be present, but they are not malaria. That some subtle agency in addition to climatic influences is at work, seems probable, but whether it be one or more we cannot say.

This theory of the material nature of malaria is, at any rate, a good working hypothesis, even though we cannot demonstrate its actual existence; and as such only would I receive it, pending more definite information.

A glance at the distribution of fevers in India will show that there, as in other parts of the world, they occur in districts that present opposite characters, and it would be easy to show that they are sometimes absent altogether where marshes and other conditions presumably favourable to their existence abound, and that in arid regions in Africa, Spain, on the sandy soil of Walcheren, in Greece, the Island of Ascension, etc., the fevers are often severe.

MacCulloch believed in malaria from a variety of sources: the surface of damp ground; still, stagnant waters, from the lake to the smallest pool, the dungheaps and pools at the doors of farmhouses and cottages; from sewers and ditches; from the mud left by the recess of the tide, and at the mouths of rivers; the minute marshy and swampy spots in low situations near woods and on roadsides, or small spots of coppice and brushwood in England. He mentions a case in the West Indies where a number of men were seized with fever from exposure to some ground which, by the removal of boxes, was exposed to light and heat. From the mere malaise of the disordered health which many people feel in certain localities that are damp and ill-ventilated and built on damp ground, to the severest forms of remittent, he ascribes them all to malaria. We are not wont to call it malaria unless it produces periodic fever, neuralgia, or cachexia; but we do not unfrequently find people recover from a depressed state of health with anomalous symptoms on removal from a damp locality, and in this sense we may call it malaria. The depressed health that results from exposure to impure air from drains and sewers (I mean irrespective of specific poisoning) is of the same character, and the ill effects of such localities on persons who have previously—it may be long before—suffered from tropical fever are not uncommon; I have seen cases where each autumn brought back vague indefinite symptoms of malarial fever, or neuralgia, and rheumatism, quite restored to health by quitting the locality at that time of the year; and lately we read of malaria from flower-pots. I have heard of it from watering a flower-bed in India, and of an insidious disease described as “drawing-room malaria,” arising from the presence of living plants in the hot, damp air of rooms.

Malarial fever is the origin of most of the diseased conditions I have to deal with in connexion with Indians who come home for the benefit of health, or who appear before me officially at the India Medical Board, but I occasionally see cases that present the same appearances, and, indeed, who actually suffer from periodic fever, who have never been in the tropics, and for whom it is not easy, by a stretch of imagination, to find malarial origin for the disease.

The existence of malaria as a material particulate thing has not yet been demonstrated, and it is still asked if such a thing exists. Dr. Macnamara says, in his work on “Himalayan India”—“What is meant by the term malaria? Does it simply express the result of certain climatic influences, or does it imply the existence of something more

material as a poison?” Is that which we call malaria the sum of the operations of the various conditions of climate and place by which we are surrounded? It may be so; there are circumstances connected with its action which are difficult to reconcile with a parasitic origin, and for the present our attitude with respect to that, much as we may wish that it should prove all true, must be one of reserve; but who that has followed the progress of pathological investigation during the last quarter of a century would venture to assert its impossibility or its improbability, or that in such researches as those of Pasteur, B. Sanderson, Lister, Greenfield, Koch, Klebs, T. Crudelli, and others, we may not find a complete solution of the problem.

Briefly to summarise the facts about this so-called malaria and the methods by which it acts—whatever it may be, it seems to be greatly influenced by local and climatic conditions; its activity increasing generally with proximity to the equator; absent from the arctic, feeble in the temperate, it becomes most concentrated in tropical regions, though there are parts of Asia in North India, as well as of Europe, where it is most active. Though prevalent in low-lying, marshy, or water-logged ground, or on soil drying up after rain—as in the Himalayan Terai, or Sunderbunds of Bengal, in Assam, or on land that is rendered damp by damming of watercourses and interrupted drainage or saturated subsoil from irrigation, as has been remarkably illustrated in the last few years in the division of Burdwan, which has suffered severely from a low form of malarial fever—it is also found on dry, sandy, or rocky ground, where there is little or no moisture or vegetation of any kind. Of this there are many examples in Europe and in India. But still, water seems to be the prime causal agent, if not on the surface, in the subsoil, especially when *stagnant* and near the surface. Water seems not only to determine the generation of malaria, but to hold it in solution! The natives of India attach little importance to atmospheric states, but firmly believe that the water of pools and tanks, or even that of streams flowing through certain jungles or marshy places, is charged with the fever poison; and many believe that the milk of buffaloes or cows fed in these places has the same property, as I have myself heard natives in the Terai assert. Malaria is more active near the surface of the ground, and in valleys, hollows, deep dry ditches or moats, low alluvial soils, old tanks filled with refuse, silted-up beds of rivers, dams across streams, obstructed watercourses; decreasing in energy with height, it ceases to exist above certain altitudes, variously given at from 1500 to 5000 feet. How high it permeates the air above the sea-level surface is not known, but it is certain that the top of a hill, even the upper room of a house, is less dangerous than the ground floor. It occurs in some of the hill-stations of India, but as there is constant communication with the plains and valleys, this may be the result of importation. It moves like mist, and rolls up the hill-sides, nay, overtops those of a certain height, may be dissipated by or travels with the wind, probably some miles, but no one can define any particular limit, though to a greater distance over land than over water, especially salt water, which is supposed to have the power of absorbing and retarding it. Crews of ships lying at a considerable distance to leeward of a malarious shore have been affected by the off-shore wind, and it is said that ships have generated it from certain cargoes of green wood, coals, or other vegetable matter; that they have evolved miasmata from rotting timber or bilge, which have developed fever of great severity. Steeping of hemp, jute, and indigo, or other vegetable matter, has had similar effects. Villages and camps have been affected when to leeward of swamps, even at a considerable distance. It is said that burning fires, smoke, or a belt of trees will arrest its progress; that it clings about trees—hence the danger of sleeping under certain trees; that the growth of trees will destroy or prevent it, and that some, such as the eucalyptus for example, have a special antagonistic power; but there is probably nothing more in this than the rapid growth of these trees which makes them quickly into plantations. A screen of gauze or muslin is said to be protective, and that a mosquito curtain will keep out malaria as well as insects! It is not generated where the diurnal range is below 60° Fahr. A very high temperature does not always cause, it may even appear to prevent, it, though the other necessary elements seem to be present. Malaria is more active at night than in the day—more likely to affect those

who are exposed to it at that time, especially during sleep, and more especially if on or near the ground. It affects the weak sooner than the strong, those of a phlegmatic, lymphatic, or melancholic, rather than the sanguine or nervous temperament; the sickly and ill-fed before the robust; it spares no age; new comers are more liable to suffer than those who have been acclimatised; it affects all races. The natives of India suffer greatly, but it would appear that the negroes in some parts of the coast of Guinea acquire a toleration, which has been referred, possibly without sufficient reason, to the colour of the skin. There are certain tribes in the Terai and other forest districts of India which acquire some immunity; the non-Aryan races, such as inhabit Assam, suffer, it is said, to a greater extent from malarial disease than the Aryans in the same province. The Tharoos(e) live where it would be death to others, but even they are not altogether exempt.

Malaria is very intense in the Terai, which is the belt of low, swampy, forest ground at the foot of the Himalaya mountains, where the porous soil has a substratum of clay by which the water is brought and retained near the surface, and where there is dense vegetation and a high temperature; in certain jungle districts and water-logged land, and where the tides encroach; on the river valleys, the deltas, and at the debouchures of rivers; and near rice and other cultivation in some stages, though the danger from fresh rice cultivation is probably exaggerated—in such localities as the Sunderbunds of Bengal, where the alluvial mud is covered with dense jungle and frequently washed by the salt water—the jungles lying at the foot of hill ranges and along the sea coast where salt and fresh water mingle, and where organic matters decompose amid moisture and heat. But it is scarcely less active on high and arid sandy ground, as in the Deccan, Sind, Bikaner, Peshawur, the Punjab, Bhawalpore; but, even in these localities, subsoil damp and organic matter—for there is always some—appear to be at the bottom of it; though there are places, it must be admitted, which seem so dry and devoid of vegetation, and with the water at such depths from the surface, that it is difficult to believe that the explanation holds good—as it probably does—for though there may be no great quantity of water, the subsoil is impregnated by a certain amount of stagnant moisture, which is probably the worst of all. It often appears with great intensity—after excavation and turning up of soil—on land that has recently been broken up, or that has recently been denuded of jungle; whilst, on the other hand, cultivation, draining, and cropping seem to diminish or destroy it. The worst malarial dysentery that I have ever seen followed the clearing of some jungle during the last Burmese war. There are localities in India now comparatively healthy that were formerly dangerous! Malaria is at its worst in the drying-up season after the rains, and the beginning of the cold season; in the dry hot weather, and during heavy rains when the ground is covered with water, or when the land has been for some time cultivated and populated (compare Calcutta of 1880 with Calcutta of 1780), or covered with trees or even fresh turf, it is less severe. Certain characters of the soil seem to favour its production. Sandy, porous ground, with a substratum of clay, soil containing mineral or organic matter, mixed alluvial deposits, volcanic, rocky, sandy, granitic soils or surfaces, have been thought to favour it, but it is impossible to ascribe it any particular soil.

The low-lying, swampy ground of the Concan, and the dry, arid, sandy plains of Marwar, are contrasted by Moore; they are very different, yet malarious fever prevails equally on both. Rice cultivation is by some authorities considered most productive of malaria. Martin and others say it is not so. I am inclined to think that the fresh-growing young rice is innocuous, but that at other seasons the ground on which it grows may be malarious. Pringle and others thought salt marshes insalubrious. Jackson and others did not find their neighbourhood less healthy than other localities. Some severe remittents occur in the vicinity of the salt-water lake near Calcutta.

If, says Moore, salt marshes are deleterious, the neighbourhood of the Sambur Lake in Marwar should be deadly; and if marshes overflown by the sea are injurious, the neighbourhood of the Runn of Kutch should be an example. But the fevers in these localities are not more malignant than

in other parts of the country. Some have thought that saltiness and alkalinity in the soil conferred immunity. With reference to the occurrence of malaria on rocky surfaces, Dolomieu calls it “la maladie du granit,” from the prevalence of malarial disease on certain rocky sites. This has been attributed to the presence of fungi growing in crevices amid disintegrating granite, but the amount is so small that it can hardly be supposed to generate malaria. Mount Aboo, in the Aravulli Hills, is such a locality, but, as Moore says, “there are quite reasons enough why fever should prevail there at certain seasons, without calling in the theory of ‘maladie du granit.’”

Heyne, in a paper on the Hill Fevers in India, shows that fevers prevail where granite rocks and ironstone are found in large quantities, and attributes the disease to magnetic or electric fluid disengaged in excess. Martin thought ferruginous hornblende might be the cause. Volcanic soils and exhalations were supposed by Sir W. Napier and Parkins to cause epidemic fever in Sind. Sulphurous vapour has also been suggested as a cause. Kuler attributed the endemic fever to limestone rocks. Gordon says: “Fever may occur on rocks, and on the detritus of rocks, as at Gibraltar, Malta, Ascension, the Ionian Islands, Hong-kong, and Cape Coast Castle, when the rock is rotten, and gives out vapours as the sun falls on it after rain.” He tells us also that “in America, near the Orinoco, malarial diseases are described as occurring in localities where there is no malaria as such.” At Port of Spain, in Trinidad, W.I., the residents enjoy comparative immunity from fever, though the place is surrounded by a swamp; and yet the same persons, if they take up their abode for a single night in La Vantile Hill, in the immediate neighbourhood, overlooking the Bay of Trinidad, suffer from fever in its severest form. “It is on record that at Baïæ the French army suffered very severely from malarial fever, although malaria as an entity seemed non-existent.” So at Hong-kong, and at Cape Coast, in Africa, climatic fevers are severe and deadly, though the soil is dry and hard in both places. Vegetation is spare at Hong-kong; at Cape Coast it is dense, though not so in the same sense as an Indian jungle. At both the underlying rock consists of decomposing ferruginous granite; and at both the alternations in meteorological conditions are great and sudden, and malarial diseases prevail. In Sind and the Punjab the soil is mostly sand or alluvium on clay. At Kurrachee it is magnesian limestone, yet malarial fever, neuralgia, and cachexia are common.

I need not cite more proof that malaria may occur under very opposite conditions, and that it is impossible to assign it to any one of them. The question arises, May it not be the outcome of several causes which must co-exist before the effect is produced? Atmospheric vicissitudes, heat, damp, telluric exhalations, impurities of air, water, and neglect of personal hygiene; not one, but perhaps many or all, may have to come into operation before periodic fever is produced.

Indian experience, however, supports the view expressed long ago by Pringle, that the chief determining cause is stagnant subsoil water, under certain temperatures; for when such water moves, however slowly, the evidences of malarial poisoning are less marked. To the stagnant water must be added a certain combination of air and decomposing organic matter. What part may be taken respectively by vegetable and animal matter in the production of malaria is not known, but it is impossible to conceive of miasmata arising from organic decomposition in a tropical marsh, that is not a mixture of both, for low forms of animal life teem among the vegetation in such places, and the slime and ooze of a swamp drying up must contain quantities of animal matter, dying and dead. This may perhaps explain the more virulent character of some miasmata, and account for varying phenomena? The miasmata given off from rocky soils, having less of the animal element, may account for differences that characterise the fevers of those regions.

We must also bear in mind the influence of local conditions in determining the activity of malaria. The late Dr. Melier, in his report on the *marais salins* of France, says of the fishponds of Lindre Basse, that in the first year of fish cultivation, when the pond was half-filled, intermittent fevers prevailed; in the second year, when full of water, enteric fever prevailed; and in the third year, when dry and cultivated, carbuncular affections prevailed. These diseases succeeded one another as regularly and invariably as the

(e) The Tharoos are descendants of an Aryan race. They lost caste from drinking, and breeding fowls.—Sir S. Elliott's “Races of India.”

different states of the pond for a period of sixteen years. But a change in the rotation in 1848-49 altered the order of succession of these diseases. Here climatic conditions seem to have been the same throughout, but the local conditions were altered, with a corresponding alteration in the disease."

Taking all the facts together in order to produce the effects called malarial, you must, says Dr. Sutherland, in a letter addressed to me in November, 1881, "have water, temperature, and organic matter. If the matter be of vegetable origin, you may, according to its nature, amount, and rate of decomposition, have various types of intermittent fever, passing to remittent in aggravated cases. If it be of animal origin, or of animal and vegetable origin conjoined, you may have remittent or continued fever, Bulam, yellow fever, or enteric fever. But the personal predisposition and climatic causes must always be taken into account."

It may be asked, Is malaria always the same, or does it only differ in concentration and activity according to circumstances of season and place under which it is generated? Is that which causes jungle fever, bilious or ordinary remittent, simple ague, cachexia, and neuralgia, one and the same, or is it of different kinds? Is the malaria of the Terai the same as that of the dry soil of Sind? Unless it be proved that malaria is due to organisms, we know nothing of its essential nature. The cause, therefore, of the varying effects must also be a matter of speculation, though the tolerably constant recurrence of certain effects corresponding to certain recognisable conditions, suggests the probability that the poison is only one, modified by circumstances, which, proceeding from drying-up swamps or marshes under the influence of atmospheric conditions, including oxygenation, will most probably cause simple ague; though it is possible that the disease from the same marsh may be more intense under other atmospheric states; and in this way, what are called unhealthy years in the same district may take their origin; but in all such cases there are two factors to be considered, viz., the malarial cause and the constitutional stamina of the population exposed to its action. Excluding individual predisposition, we are probably justified in assuming that different degrees of intensity or concentration of the miasm produce the different effects.

Thus, the malaria of the Terai, or Sunderbunds, causes dangerous remittent; that of the general surface of Bengal, ordinary ague or milder remittent, or malarial cachexia; that of colder climates, a variety of indefinite complaints rather suggestive of general ill-health than any specific disease—a condition which is insisted on by some at the present day; whilst MacCulloch attributed half the ailments in our country to it, as arising from every pool, pond, ditch, or plantation in England, and found the causes of ill-health in these local developments of malaria.

Are the symptoms of depressed health seen in some damp localities in England referable to a malaria? Most probably they are! Instances might be cited to show that ditches, drains, moats, pools, newly watered ground, ships' holds, bilges, or ground newly turned up, give rise to fever in various degrees of intensity. The writings of Pringle, Fergusson, MacCulloch, and others furnish instances.

Contrary to what might be expected, natives suffer more than Europeans in India.

In India, during the hot months from March till June, fevers are more of a continued and ardent type, and are apt to prove dangerous and fatal from cerebral complications, and seem to be pathologically linked with ephemeral fever on the one hand and insolation on the other, differing, as I believe, only in degree; they are due chiefly to over-heating, and are liable to be modified by malarial influences. In the rainy season, and on to September or October, forms of intermittent, remittent, and continued type occur; there is also a tendency to dysentery and bowel complications. After the rains, during evaporation and drying-up of the wet ground, fevers of the malarial type become prevalent. When the cold season sets in they also recur, in many cases re-excited by the cold; especially in the early part of the cold season, before the system becomes habituated to the change, the weak, anæmic, or exhausted suffer, as has been described by Twining and other writers. How such changes revive fever in those who have previously suffered is well known here, for who has not heard old Indians say "the cold had brought on a return of former Indian fever, from which they had not suffered for years"? Two of the severest attacks

of ague I have had as reminiscences of remittent of former years, were caused by getting into a bed with cold linen sheets, and by a douche of cold water after the manipulations of the hair-cutter.

In addition to those effects for which malaria is directly responsible, a diathetic condition seems to be established, which modifies other diseases. The experience of Indian medical officers will confirm this, for periodicity complicates nearly all disease in India. The effects of malaria are indeed most protean in form, not only in its own definite and well-marked pathological processes, but in simulating others, from the stupor of typhus, the collapse of cholera, the high temperature of insolation, the sickness of an irritant poison, to the convulsions of epilepsy or of detention, which may occur in the pernicious forms. It induces anæmia and general cachexia, with structural changes in the liver, spleen, or other viscera; neuralgia, asthma, and various other symptoms of disturbed innervation and sanguification; and, as I have before said, appears to be in close etiological relation with dysentery, cholera, diarrhoea, beri-beri, hydrocele, elephantiasis, bronchocele, and hepatic disease.

Whatever its nature may be, the action of malaria on the human economy is very striking; it affects the central nervous system, causing disturbance of vaso-motor action, expressed in rhythmical paroxysms of fever and congestion of the abdominal viscera, which become either permanent or periodic in recurrence, and may pass on to structural changes in the liver and spleen, or intestinal mucous membrane. The nervous system also is prone to suffer—neuroasthenia, neuralgia, asthma, may result. It confers special character on other diseases, and sets up, as it were, a malarial diathesis. No one can have resided long in a malarious climate like Assam without observing the broken-down, cachectic, deteriorated aspect of the people, who, although they may never have had a single attack of fever, and do not feel ill, and would resent the imputation of being so, are yet victims to the insidious action of the poison, and present evidences of anæmia, degenerate tissues, and chronic visceral disease.

In my next lecture I shall describe intermittent fever as it occurs in India.

ANTISEPTIC USE OF BORAX.—In relation to the recommendations which have been made of employing borax as an antiseptic, Dr. Atkins states that for eight years past he has treated all cases of erysipelas by means of a solution of borax in glycerine (one drachm to the ounce), well rubbed into the skin, and applied on linen. In every case it has seemed to cut short the disease promptly, the characteristic appearances beginning to fade in a few hours. Sometimes tincture of iron was given internally, sometimes not. Dr. Atkins has also frequently used borax ointment in the treatment of suppurating sores, the results of cuts, burns, bruises, etc. The strength of the ointment is immaterial, so long as there is plenty of borax in it. In these cases the suppuration is usually checked at once, the redness rapidly paling away. In minor cases it seems quite equal to carbolic acid.—*Phil. Med. Times*, March 11.

HEAVY FINE FOR A FAULTY DIAGNOSIS.—Dr. Hans Hebra, lecturing on a case of prurigo, observes that in the Austrian army prurigo exempts from service, which scabies does not. A military medical officer, examining a soldier who was discharged from hospital, did not distinguish between the two forms of artificial eczema, that of prurigo and that of scabies, and the man seeming quite well, he gave him a certificate for service, thinking that the traces of skin-disease which were visible were due to scabies. When the soldier was exposed to the hardships of a campaign, the noise he made at night with scratching was insufferable to the other soldiers, and when he ought to have been firing on the field of battle he fell to scratching himself. He was sent to a hospital, and soon got well enough to return to his regiment; but the prurigo soon recurring, he was sent back to Vienna, and, on being inspected there, was exempted from duty on account of the nature of his affection. But the army surgeon was held responsible for all the expense which the State had incurred in transporting, feeding, and clothing the man during the time he was in the army, and this amounted to 300 or 400 florins. Supposing a recruiting surgeon examines 600 or 700 men daily, his risk of decimating his pay is thus very considerable.—*Philadelphia Med. Times*, March 11.

ABSTRACT OF

THE GULSTONIAN LECTURES
ON
PULMONARY CAVITIES: THEIR ORIGIN,
GROWTH, AND REPAIR.

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LECTURE III.—*Concluded.*

AMONG the forces acting from within which assist the contraction of cavities, the most important are (1) the retraction of the trabeculæ, (2) the fibrous shrinking of the bronchi.

1. In virtue of their elastic nature, trabeculæ, as long as they escape ulceration, must tend to approximate their points of attachment. The same observation applies to the denuded bloodvessels which stretch across the large vomica due to caseous pneumonia. The tension to which I allude is often demonstrable in the recoil suffered by the segments of a trabecula when the latter is divided. In addition to this purely elastic force, trabeculæ in chronic fibrotic cavities are apt to become the seat of a fibrosis analogous to that occurring in the cavity-wall.

2. In the case of vomica which have undergone contractions and have retreated from the surface, it is almost impossible not to recognise the action of a definite and continuous force, the direction of which lies in the path of the bronchus. I am the first to admit that the retraction is brought about by a combination of circumstances; among the latter I hold the collateral expansion of the surviving tissue to be one of considerable importance. On the other hand, the force to which I would call your attention is obviously linear; its direction is often clearly indicated by the course of the fibres constituting the ligamentous bands which connect the cavity with the chest-wall. The view which I take of the existence of a retracting force inherent to the diseased bronchus receives support from a comparison of the conditions of the bronchial wall before the occurrence of excavations and subsequent to it. The shortening of the diseased bronchus is obvious to the eye, and its thickness from impalpable has become excessive; and the remarkable pliancy of the healthy air-tubes, which adapt themselves with perfect ease to the to-and-fro movements of respiration, is completely abolished.

It may be well at this stage briefly to recapitulate the forces which encourage contraction and retraction; the falling-in of the thorax, the hyper-expansion of the surrounding tissues, the hypertrophy of the opposite lung, the rise of the diaphragm, and the growth of fibrous tissue, partly within the lung and partly in the pleura around it, all exercise some amount of constricting pressure upon the cavity, whilst the trabeculæ and the bloodvessels within them assist the tendency to contraction inherent to the capsule; and lastly, the remarkable displacement of cavities towards the root of the lung is the combined result of the traction of the thickened bronchus and of the pressure of the expanding pulmonary substance.

Contraction, which I have hitherto studied with you to-day, is but the first step towards the healing of cavities. Healing is a vital action which implies agencies exactly opposed to those which have led to tissue-destruction. We have seen that phthisis, although originating in congestion, is ultimately productive of local anæmia. Softening or caseation is immediately preceded and is determined by a proliferation of cells within the alveolus, and yet more important by a cell-growth—so well described by Dr. Wilson Fox—in the thickness of the alveolar wall, the combined result of which is to compress and finally to obliterate the capillaries. But with the onset of reparative action the balance of growth is reversed in favour of the bloodvessels. Cell-proliferation continues, it is true, but it is subservient, as in simple granulations, to the production of capillaries which are to form the basis of the future cicatrix. The probable existence of a normal vascular connexion between the pulmonary artery and the bronchial system is a subject

of considerable obscurity, ill suited for discussion in this lecture. But it may be stated that a case is recorded by Virchow in which the bronchial system was found enlarged, as a consequence of an impediment in the pulmonary supply; and I am in a position to adduce similar testimony in favour of a vicarious relation between the two sets of vessels. Whilst curator of the museum of St. George's Hospital, I exhibited before the Pathological Society a specimen, which I now place before you, in which the right pulmonary artery was completely occluded by means of ancient fibro-atheromatous material. The blood supplied to the right lung was obviously derived from some extraneous source; in a great measure, doubtless, from the bronchial artery. A similar specimen, which I have also placed on the table, had been exhibited before the Pathological Society in 1862 by Dr. Howship Dickinson; there, also, the right pulmonary artery was completely occluded, owing to disease of old standing. In this case the lung was considerably atrophied and fibrous, and the patient had suffered from severe dyspnoea.

Facts of this nature almost prove that the blood in the bronchial artery is capable of doing duty for the pulmonary blood, and that the substitution is facilitated by some pre-existing anastomosis between these two systems. In phthisis the bronchial artery is not entrusted with any respiratory duties of this kind. Its functions concern mainly the repair of the lung. This was strikingly illustrated by Guillot's injections. (a) If we are to trust to the results of these injections, every formative effort directed towards the limitation or healing of pulmonary lesions would originate with the bronchial vascular system. The development of capsules around cavities maybe conceived to take place in the following manner. The truncate extremities of the numerous bronchioles intercepted by the vomica become centres of inflammation and of fibro-nuclear growth, which soon overlap, and ultimately assume a continuous expansion, owing to vascular anastomosis. This continuity of the cavity-wall, and of the peribronchial tissue is readily appreciable to the naked eye in many instances. I have elsewhere insisted upon the danger of mistaking this condition for one of true bronchiectasis. We should equally guard against supposing that the capsule of the cavity is simply a distended bronchial sheath from which the other bronchial constituents have disappeared. It is in reality a new formation, continuous, but not identical, with the thickened peribronchial tissue.

Under the joint influence of the bronchial and of the pleural blood-supply, the reparative energy of which greatly outstrips that of the pulmonary circuit, the cavity is placed under circumstances of nutrition not far inferior to those of the bronchi themselves. In their power of resisting ulceration they remain far behind the latter, plainly owing to the absence of a membrana propria, and especially of an epithelial layer. But, having regard to this deficiency, we may justly wonder that the necrosis should remain as limited as we observe it to be.

Whereas in other organs the obliteration of abnormal spaces is effected by a free granulation arising from the bottom of the cavity, surface granulations are practically absent from pulmonary excavations. The occasional occurrence in the walls of cavities of granulations worthy of the name, is, I think, clearly traceable to the influence of the systemic blood-supply. I have seldom witnessed strong, healthy granulation excepting close to the orifice of the bronchus, or in portions of the cavity-wall in immediate contact with the pleura.

The air and the fluid present in cavities both offer an obstacle to the perfect contact of their opposed surfaces. In small cavities the contraction of the membrane may be so complete as to expel all fluids, whilst the air may be finally excluded owing to the obliteration of the bronchus. The same opportunities are not enjoyed by the larger cavities. The stagnation of their contents discourages within their walls the growth of granulations at a time when the vascular conditions are most favourable. Sooner or later the necrotic action which I have elsewhere described exposes the fibrous constituents of the capsule, and the ultimate cicatrization is rendered improbable, unless contraction be rapidly induced, or that the wall should become once more the seat of some degree of healing inflammation.

Although it may be doubted whether pneumonic tissue is capable of producing granulations of good quality, I cannot

(a) See "L'Expérience," tome i., page 545, 1837.

admit the supposition that the lung-substance originally labours under any special disability of this kind. I rather hold that the invariable decay which overtakes granulations is the outcome of the mechanical conditions of cavities, and that if freely drained the latter would granulate successfully and finally adhere.

All situations do not afford like facilities for processes of healing. The opportunities offered by the *inner subclavicular* region are exceptionally good. The sternal lobe, when free from adhesions, as is usually the case in early phthisis, is capable of exercising by its hypertrophy effectual pressure upon the smaller cavities; and the shortness of the bronchi supplied to the affected region is another favourable circumstance.

Healing is more uncommon in cavities situated at the outer aspect of the apex; there exists in this region a greater tendency to extension to the supra-scapular region, and to secondary disease in the upper axilla; and, moreover, the deposition of a mass of secondary tubercle, so commonly observed in this situation, generally leads to inveterate disease.

Cavities situated in the *sternal* region do not usually occur from other causes than hæmorrhage, or as a late result of advanced phthisis. In the latter case they are unlikely to heal; in the former the possibility of a favourable termination is not excluded, although too often the cases in which blood is inhaled into this district present extensive disease elsewhere. The upper sternal region is probably more favourable for healing than the lower, which receives its bronchial and vascular supply from a greater distance.

In the *axillary* region secondary excavation is for obvious reasons ill suited for recovery.

Primary cavities in the axilla are placed under very different circumstances. They are surrounded by spongy material capable of vigorous reparative action. I have frequently noticed in the mid-dorsal or axillary region small spherical scars, obviously the remains of small cavities at the mid-dorsal region of the lung, and I shall presently exhibit to you a specimen in which cicatrization of a larger cavity, although uncompleted, had proceeded to a considerable extent.

Basic cavities are so uncommon that the healing of vomicae in this situation must be of very rare occurrence. The basic excavations which belong to the last stages of the disease are clearly unfitted for recovery, and to them I will not further allude. Probably many of the instances of healing basic vomicae hitherto alleged were really cases of mid-dorsal disease, in which the cavernous sounds were conveyed to the base by some transient consolidation. Echo may have a share in the production of cavernous sounds at the base.

Again, in the large class of bronchiectasis to which so many basic cavities belong, the cavernous sounds are apt to disappear periodically, owing to the filling of the bronchial sacs, and an impression may be produced that a phthisical cavity has become obliterated.

But when due allowance has been made for these possible fallacies, it must be admitted that primary cavities may originate at the base from various causes, and that they are not incapable of recovery. One great disadvantage they all possess in common: I refer to the difficulty of drainage. Adhesions to the diaphragm also constitute, where they exist, a most serious complication. But when we consider the amount of spongy tissue by which they are surrounded, and the powerful cough-pressure which can be utilised for their voidance and for their contraction, we must conclude that they are, in these important particulars, singularly favoured, and we are led to surmise that cavities at the base may occasionally run through their stages unobserved, and ultimately heal, more frequently than we suspect.

I propose to devote the remainder of this lecture to a consideration of the collateral results of the healing of vomicae.

The contraction of cavities is capable of exerting an influence in four chief directions—(1) upon the outline of the chest; (2) upon the shape of the cavities themselves; (3) upon the shape of the lung; (4) upon the position of neighbouring viscera.

Let us consider first the alterations induced in the shape of the chest. Most constant is the occurrence of a local flattening, which takes place over the site of excavation. I have elsewhere sufficiently described the mechanism of this

collapse. The local falling-in of the ribs inevitably leads to a corresponding increase in the convexity of the costal arch. This secondary bulging of the outline of the chest is usually seen in the axilla; it supplies an important confirmation of the occurrence of excavation. A similar falling-in may affect the whole side upon which excavation has taken place. In these cases the opposite lung is often of considerable size, and encroaches beyond the sternum. The clavicle is usually rendered more prominent, owing to the depression of the supra-clavicular space, and to the recession of the ribs and of the upper part of the pectoral muscle. Extreme instances of this unilateral contraction closely resemble the deformity produced by pleurisy with lung-collapse, of which Laennec has depicted so striking an illustration. Curvature of the spine, often of considerable extent, has repeatedly been observed by me. In youth it is undoubtedly one of the active means of adaptation to altered thoracic conditions.

The relations of cavities to surrounding parts are also subject to variations. In all cavities the natural tendency is to a recession towards the root of the lung. The direction of the shifting of the apex-cavities is remarkably constant. Unless rigidly fixed by adhesions, they invariably tend to retreat from the point of the chest towards the back, and from the subclavicular into the axillary region; consequently the chronic cavities so frequently detected after death at the outer apex should not be taken to have necessarily originated there. This remarkable shifting was pointed out by Dr. C. T. Williams in his Lectures on the Various Modes of Contraction of Cavities in Phthisis Pulmonalis. (b) The recognition of the change to which I have alluded has a direct bearing not only upon our diagnosis, but upon the prognosis which we may form in individual cases. Unless we have carefully examined the upper axillary region, we cannot pronounce a chest to be free from excavation. The signs of disease have sometimes entirely disappeared from the interior aspect of the chest when cavernous sounds are still plainly perceptible in the axilla. The discovery of a vomica in this situation frequently throws upon the history of the case a clearer light than is derivable from the patient's own statements. On the other hand, in the early stages of subclavicular disease the rapidity with which the signs are observed to recede may be accepted as a measure of the favourable chances. From this rapid shifting we derive an assurance that the vomica has ceased to extend, that contraction is active, and that the lung is sufficiently free from adhesions to acquire the compensatory development which is the first essential towards recovery.

The changes in the position of cavities which I have indicated are usually bound up with very definite alterations in the configuration of the lungs. Upon this third result of the contraction of cavities I would dwell at some length. The retraction which has been shown to take place in the line of the bronchus leads, unless rigid fixation has resulted from adhesion, to a dragging inwards of the surface of the lung at a corresponding point. Thus a deep puckering found at the surface of the lung after death is often an indication of a subjacent cavity. Similar puckerings may, however, result from a variety of circumstances (*e.g.*, the fibrin of an infarct, syphilitic fibrosis, or the common fibro-tubercular masses). The puckering due to tubercles or to hæmorrhagic nodules consists in a shallow depression of the surface, over which the pleural membrane is roughened by irregular and rigid wrinkles. Cavities, on the other hand, being drawn in towards the root of the lung, give rise to a slit-like infolding of the surface, invariably deeper than the hæmorrhagic pucker.

Thus *involution* of large extent are most commonly due to the retraction of cavities. The scars so commonly found at the apex in old age are often independent of any deposit, and due to a simple infolding of the lung surface, which may be considered as a senile change. I look upon this variety of involution simply as an indication of disturbed proportion between chest-space and bulk of lung. Whenever the thorax is too small for a lung, or the lung abnormally large for the size of the thorax, the superfluous surface must be reduced by involution, a "reef" taken, as it were, in the visceral pleura. The large-lunged emphysema sometimes observed in old age leads to essentially similar conditions. The thorax shrinks relatively earlier than the lung, and the unsubstantial pulmonary expansion kept up under the

(b) *Lancet*, 1873, vol. i., pages 298 and 369.

influence of chronic bronchitis necessitates an adjustment by means of involution.

I have more specially referred to the senile conditions, because in them we possess the simplest illustration of the changes which so commonly result from excavation. The flattening of the upper part of the chest induced by excavation and fibrosis of the upper lobe must, of necessity, occasion some flattening of the lower thorax. The base of the lung, which is usually the seat of compensatory distension, becomes relatively to the thorax hypertrophied, and involution follows after the simple mechanism which I have described. The shape of this involution is governed by the form of the thorax. If the latter be flattened from front to back, the lung will become affected with *transverse involution*; if from side to side, the sulcus of involution will follow an *antero-posterior* direction. In both these instances the horizontal section of the base is lessened in diameter, and the divergence of the opposite sides of the lung being diminished, the lung tends to elongate. Occasionally the folding at the base occurs in several diameters, and the lower surface of the lung, which is usually under these circumstances adherent to the diaphragm, is hollowed out into a dome-like involution.

Involution of the pulmonary surface and the loss of respiratory tissue incidental to it are capable of being promoted by artificial interference, especially where pleurisy co-exists. Respiration is influenced by pleurisy in a very definite manner. The natural excursions of the ribs are reduced; the lessened amplitude and power of the diaphragmatic contractions shorten the range of vertical displacement of the lung; and the thorax, as a whole, for the avoidance of pain, assumes a position almost of expiration. Adhesions being favoured by comparative rest, and completed at a stage of imperfect expansion, the base of the lung, in a slightly collapsed state, becomes connected with a restricted surface of the convexity of the diaphragm. I consider it probable that this tendency may be materially encouraged by the mechanical appliances so often used in the treatment of pleurisy, and that the respiratory excursions may become shortened even beyond natural and instinctive limits. The ultimate results on the outline of the lung are readily perceived. The contraction and the descent of the diaphragm cannot take place without inducing a folding or involution of the basic surface. Pleurisy at the base is an extremely common event in phthisis, and it often intensifies, in the manner which I have described, the involution arising from the contraction of cavities and from compensatory hypertrophy.

Great shortening occurring in one lung as a result of the contraction of a cavity usually determines some degree of shortening in the other lung. The sound lung, whilst it expands in breadth under the influence of compensatory hypertrophy, is restricted as to vertical space. This leads to the formation of a transverse involution, which often occupies the middle third of the axillary surface, and which, as it were, accommodates the sound organ to the curtailed dimensions of its fellow.

From what has been stated in this lecture concerning the ascent of the diaphragm in cases of vertical contraction of cavities, and concerning its depression, where the contraction, being horizontal, tends to narrow and elongate the lung, it is easy to divine the direction and extent of the secondary displacements of the abdominal organs. Upon this part of my subject I would not further dwell; but I would direct your attention to the more important alterations which occur in the position and shape of the thoracic organs, and especially of the heart and large vessels.

The aorta, doubtless, owes to the strength of its walls, and to its close connexion with the vertebral column, its escape from the effects of pressure, to which other vessels are subjected. The superficial position of the pulmonary artery, and its comparative thinness, render it especially liable to suffer. The shrinking of the cavities at the left apex is almost inevitably followed by exposure of the pulmonary artery, and not infrequently by some degree of pressure upon its walls. The clinical signs of these conditions, when present, supply valuable testimony in favour of the diagnosis of contracting vomica. The large veins accommodate themselves with wonderful ease to the great shifting which they occasionally undergo under the influence of excavation, and we seldom notice any serious complications arising in this direction.

Of great interest to the practical physician are the alterations in the position and in the relations of the heart.

The extent of the exposed cardiac area sometimes throws much light upon the degree of expansion or of retraction of the lungs. Excavation occurring at the left upper lobe, especially in its anterior segment, is apt to be followed by retraction of the spongy substance which normally covers the greater part of the heart's surface. Excavation in a similar position on the right side, although it may lead to exposure of the right side of the heart, is usually accompanied by the encroachment of the left sternal fringe over the normal cardiac space, and the presenting surface of the heart is not, as a whole, increased. Where the excavation, instead of being anterior and superficial, extends into the depth of the lung and involves some of the bronchi, which are distributed towards the shoulder, and where, moreover, the pericardial surface is adherent to the lung, considerable displacement of the heart outwards takes place on the side affected. The displacement of the heart towards the right is less frequently described, not owing to a less frequency of the apex excavation, but rather owing to the fact that compensatory hypertrophy of the right middle lobe usually supplies in the right half of the chest the place of the tissue destroyed: I have frequently met with this displacement.

A purely secondary influence is to be ascribed, in my opinion, to the aorta, to the pulmonary artery, and to the superior vena cava in determining a rotation to the left in left lateral displacement of the heart, and to the right in right lateral displacement. Within the pericardium, which limits its movements in a very definite manner, the position of the heart is controlled by three attachments closer than all others. I refer to the pulmonary veins on either side, and to the intra-pericardial portion of the inferior vena cava. The shortness of these trunks occasions at the base of the heart the same movements which the vessels themselves undergo. At the corners are the right and the left pulmonary veins, which, as they recede with the lung, tilt the heart towards the one or the other side. In this movement of lateral displacement the "hinge" of the heart appears to me to coincide not with the line drawn between the upper and the lower vena cava, as suggested by Dr. Sibson, but rather with the lines passing through the inferior vena cava, and through the right and the left pulmonary veins respectively.

In bringing these lectures to a conclusion, I feel that they have contained little information which can be recapitulated in the shape of propositions. The difficult study of cavities has repaid me rather in suggestions than in facts: these suggestions I have attempted to lay before you. The method which I have adopted in my endeavours to gain a clear insight into phthisis has been chiefly based upon a study of functional relations. I am conscious of the meagre results which I have obtained and of the great amount of work which remains unachieved. Yet if I have in any way contributed to the adoption of a plan of investigation which may become productive in other hands, these lectures, and the indulgent attention with which you have received them, will not have been in vain.

THE VIENNA UNIVERSITY.—The number of students attending the lectures during the last winter session amounted to 4823. Of these 226 belonged to the theological faculty, 2240 to the judicial, 1412 to the medical, and 769 to the philosophical faculty. There were also 176 pharmaceutical students. The number of students frequenting the medical faculty has nearly doubled since the winter session of 1877-78.—*Allg. Wien. Zeit.*, April 4.

DETENTION OF CRIMINAL LUNATICS.—Dr. Auguste Voisin, the distinguished alienist of Paris, in a recent address, suggests the following changes in the law governing lunatics:—1. Every individual who, having committed an offence or crime, shall be found to be insane, shall only leave the public or private asylum after a medico-legal inquiry ordered by judicial authority. In all cases he will be detained in the asylum for a term at least equal to the penal detention to which he was condemned. 2. Every individual who has been confined in a lunatic asylum may, in case of relapse, be received into the same asylum on a physician's certificate, endorsed by the proper official.—*Louisville Med. News*, April 8.

ORIGINAL COMMUNICATIONS.

ON THE ELECTRICAL TREATMENT OF PARALYSIS AND ITS RATIONALE.

By A. DE WATTEVILLE.

(Concluded from page 403.)

WE now pass to the consideration of the curative effects of electricity applied peripherally to the point of lesion; in other words, applied *in loco symptomatis*. At first sight it appears very unlikely that electrification of a limb paralysed in consequence of a hæmorrhage in the corpus striatum, or of a diseased condition of the spinal cord, or even of an injury to a nerve at a point far above its muscular distribution, could possess any therapeutical value. Yet experience has repeatedly proved the good effects of this mode of procedure. I am not speaking here of those cases where, during an electrical treatment protracted over many weeks or even months, the patient has gradually improved—a result which must frequently be ascribed to nature alone,—but of those instances, numerous enough and well authenticated, where the improvement was sudden and marked from the very beginning of the treatment, or where it clearly kept pace with the treatment, being arrested by every suspension of it, and proceeding again on each resumption.

How does, then, electrification peripherally employed modify a paralysis depending upon a centrally placed lesion? We must, before trying to answer this question, remind the reader of the distinction to be established between simple and atrophic paralyses. It is obvious that where muscular atrophy complicates the diminution or loss of voluntary power over the organs, any treatment directed against this atrophy will indirectly mitigate the paretical symptoms. It is only of late years, however, that atrophic paralyses have received their due share of attention, and there still survive in electro-therapeutical literature a number of statements proceeding from a time when the phenomena of muscular atrophy were not sufficiently understood. Thus, we cannot accept the following words as conveying a just idea of the mode and action of electricity in the treatment of paralysis:—"After the paralysis has lasted some time, and there is fear of the muscles degenerating from disuse, our aim must be to preserve the muscular part of the locomotive apparatus in a state of health and readiness, until, peradventure, that portion of the brain from which volition proceeds having recovered its functions, or the road by which its messages travel having been repaired, the influence of the will shall again reanimate the palsied limbs." It is not the atrophy from disuse of the muscles that we fear now in cerebral paralyses, but rather the secondary degenerations of the antero-lateral tracts of the cord. In "spinal" paralyses, on the other hand, we know that muscular degenerative changes fatally supervene when the trophic influence of the anterior grey nuclei is completely cut off (as in facial paralysis from cold, and traumatic paralyses), notwithstanding the most sedulous galvanisation and faradisation of the affected limbs. Moreover, the very rapid improvement observed in many cases of old-standing paralyses proves conclusively that the mechanism through which electricity acts is not so indirect as that described in the quotation just adduced.

Two hypotheses are possible in explanation of the therapeutical influence of peripheral electrification on a paralysis of central origin, uncomplicated by muscular atrophy:—
1. The nerves and muscles remain, after the recovery of the tissues at the point of lesion, in a state of functional inactivity; in other words, the re-innervation of the peripheral tracts of the neuro-muscular apparatus remains in abeyance.
2. The electrification of these parts has a centripetal effect upon the seat of lesion, and there stimulates the natural process of recovery. This influence may be carried upwards, either directly through the motor nerves to their centres, or reflexly through the sensory nerves.

The first hypothesis—that of functional inactivity of nerves which otherwise present a healthy structure—may be readily conceded as probable in those cases where the paralyzing lesion has been followed by the usual process of degenerative atrophy of the neuro-muscular apparatus. Here, when the regenerative process has taken place, there occasionally re-

mains a functional inactivity of the nerve, or deficient conductivity of the voluntary impulses. In such cases, electrification is followed by striking results, the rapidity of which excludes an explanation through any deep effects of the currents upon the nutrition. The nerves must obviously have been the seat of a slight molecular disturbance, which is readily amenable to the stimulating or alterative influence of electricity. It must be noted that it is in these very cases that the irritability of the nerves, especially to the faradisation, remains long—possibly even permanently—in abeyance after the return of conductivity: a fact which points to some difference between the constitution of the healthy and that of the regenerated nerve. It is, perhaps, less permissible to assume any loss of conductivity in the nerves after a non-atrophic paralysis, such as hemiplegia from cerebral hæmorrhage. That such an occurrence is possible is perhaps shown by the fact that the irritability of the paralysed parts is often altered—sometimes increased, more usually diminished. These alterations probably depend more directly upon some disturbance, secondary to the more central lesions, of the anterior spinal (and bulbar) grey matter, which, as we have already said, plays an important part upon the intimate nutrition—and hence the functions—of the peripheral motor organs. But we need not speculate any further upon these as yet obscure phenomena, and we pass to our second alternative.

If in centrally placed disease peripheral electrification does not relieve the paralytical symptoms by removing some abnormal local condition of the nerves and muscles, it must do so by a centripetal effect, consisting in an alteration of the nutrition or molecular constitution of the centres through the stimulation of the nerves and muscles. It is obvious that in all the ordinary methods of electrification the sensory nerves must receive their full share of the stimulus, and that through their channel the centres must be influenced in some real, though as yet unexplained, manner. Therapeutics abounds with methods based upon the centripetal effects of peripheral applications. As already remarked, the procedures of hydrotherapy, the actual cautery, and all kinds of counter-irritative, derivative, and revulsive measures, rest their *rationale* upon the reality of such effects. Whether the latter are mainly and primarily of a vasomotor nature, as it has been the fashion lately to say, is very doubtful; but this is not a point to be discussed here, our only object being to establish the fact that electricity has an undoubted right to be considered as a modifier of the nutrition of the deeper parts by its action on the cutaneous sensory nerves.

The readiness with which anæsthesiæ of central origin often yield to peripheral excitations is well illustrated by the recent experiments with static and faradic electricity, magnetism, and the like, not only in cases of hysteria, but also of organic disease; and remembering the close connexion there is between the innervation of the superficial and that of the deeper parts, we need not experience any difficulty in accepting the possibility of an influence conveyed from the sensory to the corresponding motor central tracts.

Professor Vulpian has lately published the results he obtained in several cases of paralysis from the systematic faradisation of a circumscribed portion of the skin of the affected limbs. In one remarkable instance a hemiplegic and aphasic patient not only displayed signs of motor improvement, but a distinct though ephemeral amelioration of his aphasic condition, after each application of the faradic brush to a limited area of the forearm.

It is very probable, however, that a centripetal effect is conveyed to the motor centres by the motor nerves themselves, when these are subjected to the electrical stimulus. Physiologically we know that nerve-fibres are endowed with double conductivity; further, that the condition of electrotonus is propagated upwards from the point of polarisation; and also that the same obtains with the negative variation following the irritation of the nerve. The "paradoxical contraction" of a muscle which follows stimulation of a nerve-branch inferior to the one supplying that muscle is well known. Another consideration which may be adduced here is that it is the motor nerves which keep up the trophic influence of the cord upon the muscles. Now, it is probable that this trophic influence is a complex phenomenon, consisting of an action and a reaction; and that changes in the peripheral reverberate upon the central

organ; and hence that an agent possessed with such power over the functions and nutrition of the muscles and the motor nerves as electricity may thereby indirectly influence the central motor fibres and cells. Whatever be the truth of these rather speculative views, (a) clinical observation teaches us that in a variety of states the centers are highly sensitive to peripheral stimulation, not only of the sensory, but also of the motor, nerves. The phenomena observed under these circumstances differ not only quantitatively, but also qualitatively, from what occurs in health; and we are indebted to Remak for many suggestive observations on this point, which seems to have been lost sight of by his successors, engrossed as they were by the interesting problems of electro-diagnosis, and the lively polemics concerning the polar method.

Remak's earliest researches were made with a view of testing the alleged paralysing influence of the galvanic current, and led him to lay special stress on the "galvanotonic" effects of a continuous current applied under certain conditions to the human motor nerves. He noticed that not only the muscles supplied by the nerve, but sometimes their antagonists, could be thrown into a condition of "galvanotonus" or tonic spasm during the whole period of the passage of a constant current. This is not the place to discuss the nature of these phenomena,—further experiments are required to eliminate the numerous sources of fallacy that beset these inquiries,—we adduce them here merely as possible illustrations of the principle we are considering. In morbid conditions of the nerve-centres phenomena are not rarely witnessed which prove beyond dispute their increased irritability to stimuli applied locally or at a distance. These show how, in disease, motor centres may become susceptible of being influenced in their functions, and hence their nutrition, far more readily than in health. For instance, we know now that the phenomena of the "diplegic contractions" are simply manifestations of such an increased irritability. Under certain conditions muscles may be made to contract by applying the electrodes to two points (hence the name, di-plegic) of the body distant from these muscles and their nerves. These contractions may even be *crossed*, and appear on applying the current to the opposite side, and have been observed in progressive muscular atrophy, bulbar paralysis, saturnism, hemiplegia, rheumatic gout, etc.

Dr. Russell Reynolds says: "Sometimes you will find curious actions which you cannot very readily explain. For example, in faradising the peroneal muscles and the tibialis anticus, by applying one pole just behind the head of the fibula you may, by placing the other pole above the knee on either side, raise the heel from off the ground or the bed by calling the psoas and iliacus into action. I have seen the foot raised from eight to ten inches from the floor in this manner by a patient who could not lift the heel more than two, or at most three, inches by the extreme of voluntary effort; and have seen it raised to a less height by those who could not voluntarily remove the heel from the ground."

In a case of hemiplegia from cerebral hæmorrhage Remak found the local application of the galvanic current to the arm of little effect; but a current of twenty to thirty Daniells, applied to the crural nerve, was followed, within half a minute, by an involuntary stretching out of the paralysed arm and extension of the contracted wrist and fingers. The effect lasted only during the passage of the current. Similar phenomena were obtained by galvanisation of the sciatic nerve; and Remak thinks that the improvement eventually effected in the patient's condition was clearly traceable to the production of these "reflex galvanotonic contractions," which he distinctly asserts not to bear any proportion to the amount of sensory stimulation in the electrified region. It would therefore appear that in morbid conditions of the nerve-centres the stimulation of a motor nerve may, as we have just said, reverberate upon the grey matter of the cord, even at a distance from the point of origin of that nerve. Such considerations make the hypothesis that we may, in certain conditions, modify the nutrition of a motor centre by

stimulation of the peripheral region it governs, *primâ facie* not untenable.

From the preceding sketch of our present knowledge about the action of electricity in paralysis it will be seen that it consists rather of a still vague idea as to where to look for an explanation than of a clear understanding of the problem. We know that electricity is useful in paralysis, as we know that iodide of potassium is beneficial in syphilis. By what intimate processes either the one or the other influences the nutrition of the tissues, we have no means as yet to find out. The simplest problems of electro-physiology are still unsolved; the most solid results of nearly a hundred years' observations are the so-called "laws" of contractions and the fact of electrotonus. Since physiology on the one hand and pathology on the other are yet silent as to the vital processes of nervous action, we must remain content, whilst resting mainly upon clinical experience, with using soberly the side-lights shed from those quarters upon our therapeutical efforts.

9, Wimpole-street, W.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

CASES OF ENDOCARDITIS WITH ULCERATION.

(Under the care of Dr. SIDNEY COUPLAND.)

THESE cases are recorded as being examples of ulcerating endocarditis without septic symptoms. In each case the clinical features were those of cardiac disease pure and simple; yet the lesions found in the heart were precisely analogous to those met with in the class of cases which are specially distinguished by the term "ulcerative," and of which the three cases lately recorded (pages 198, 278, and 329) were such conspicuous examples. In these cases, as in those, there were old valvular lesions with destructive changes of recent date superadded. Both groups merit the term "ulcerative" in the pathological sense, but are widely separated in their clinical course. Hence it was thought advisable to style the former *malignant*, as indicative of their severer clinical manifestations (especially the presence of septic fever), and to emphasise the difference that essentially exists between the two groups. Embolism may complicate either form. But just as we may get from a thrombosed vein, in one case, an embolus which is simple and non-infective; and in another case, where the thrombosis depends on septic inflammation, an embolism which is infective, septic, setting up pyæmia,—so here, vegetating and ulcerative endocarditis may be simple or it may be malignant, non-infective or infective; and this clinical comparison affords the strongest proof that in those cases where the result is "arterial pyæmia," as Dr. Wilks has termed it, there is something present, over and above the mere fact of ulceration of the endocardium, to give the case its striking septic character.

Case 1.—Mitral Endocarditis—Ulceration of Chordæ—Vegetations on Auricular Endocardium—Dilatation and Fatty Degeneration of Heart—Granular Kidneys.

William C., aged forty-four, married, a carman, was admitted into Founder ward on December 28, 1880, in the last stage of heart-disease. His father had died from heart-disease, and one of his sisters was also said to be subject to the same affection. He had always enjoyed good health, was a free beer-drinker, and had never had rheumatism. Of late he had been much exposed, frequently getting cold and wet, and for seven months past had been suffering from shortness of breath, particularly after unusual exertion. A fortnight before admission his legs and belly began to swell, especially at night, the breathing had become more difficult, and for some days he had been confined to bed. He was a dark-haired, old-looking man, very depressed, and suffering from great orthopnoea. There was marked capillary injection of the cheeks, and cyanosis of lips and finger-nails. Temperature 98.6°; pulse 96; respirations 36. Legs markedly cedematous; abdomen distended, globular; dulness in flanks,

(a) Since the above was written, Rumpf has published the results of physiological experiments (see abstract in *Brain*, January, 1882), showing the trophic influence of the motor nerves upon the spinal cord in the frog. This influence he proposes to call "retro-tonus." If the cord be divided from the brain, and all the roots, sensory and motor, cut through, the cord is rapidly absorbed, its neural elements being dissolved by the lymph. It persists intact, however, if some of the motor roots are left undivided.

and free fluctuation. He had a frequent cough, and expectorated much blood-stained mucus. Abundant râles were audible over the whole chest, somewhat obscuring the cardiac sounds. The heart's impulse was diffused, heaving, and thrilling, extending much outside normal limits, whilst there was also epigastric pulsation. A loud, blowing, compound murmur was audible in the region of the apex. The heart's action and the radial pulse were irregular and intermittent. He was prescribed a draught containing ether, ammonia, and digitalis every four hours; and brandy was also ordered. He passed, however, a restless night, and died suddenly at 9.30 a.m. next day.

The post-mortem examination was made twenty-nine hours and a half after death. There was much surface congestion, the face presenting a bright red colour. The peritoneal sac contained about four pints of dark-coloured serum, and there was about a pint in each pleural cavity and three ounces in the pericardium; on the surface of the right ventricle were three small milky-white patches. The heart weighed sixteen ounces, and was generally hypertrophied and dilated. Its right cavities were distended with blood, the lining membrane and valves being deeply blood-stained. The aortic and pulmonary valves were competent; the mitral and tricuspid allowed of free regurgitation of water. The free edge of the mitral was fringed by granular vegetations, and three of its tendinous cords attached to the larger cusp were ulcerated through. A patch of small vegetations, three-quarters of an inch wide and one inch long, occurred on the auricular endocardium above the mitral orifice. The muscular tissue of both ventricles and their muscles was the seat of extreme fatty degeneration. The lungs were œdematous—a small recent infarction in the right lower lobe. Kidneys presented adherent capsules, dwindling of cortex, and granular surfaces. The liver was fatty, and there was recent catarrh of the stomach. In the metacarpophalangeal joint of the right great toe there was a deposit of urate of soda.

Case 2.—Fibrosis of Tricuspid, Mitral, and Aortic Valves—Fibrous Cord between Cusps of Tricuspid Valve (? Congenital)—Vegetations on Mitral—Ulceration of Auricular Endocardium and Chordæ Tendineæ—Pulmonary Embolism—Hypertrophy and Dilatation of Heart—General Dropsy.

Frances O., aged forty-eight, unmarried, a machinist, was admitted into Murray ward on January 9, 1882. There was nothing of importance in her family history. Many years ago she suffered from rheumatic fever, and twenty-four years ago was in a hospital with heart-disease, but had since then enjoyed tolerable health.

Five weeks before admission she became rather suddenly ill, felt very giddy, and had severe palpitation of the heart and shortness of breath. She had been under treatment ever since, but had not improved. There had been no swelling of the legs.

State on Admission.—A worn, sallow, wasted woman, with brown hair turning grey, suffering from orthopnoea, and from painful swelling of the first two carpo-metacarpal joints of the right hand. The pulse was irregular, small, and compressible, and there was visible pulsation above the right clavicle. The cardiac impulse could be felt in the fifth interspace, and also in the third, where it was thrilling in character. A systolic bruit, best marked at apex, was plainly audible over both backs. Her appetite was bad; tongue pale and thinly coated; bowels regular; temperature 97.4°.

A mixture containing carbonate of ammonia, ammonio-citrate of iron, and digitalis was prescribed.

The next day there was less distress in breathing; but the pulse remained intermittent and irregular—84 to 96 per minute. Urine: Specific gravity 1022, acid; albumen one-sixth.

On the 12th and following day she was attacked with diarrhoea, which ceased under appropriate treatment.

On the 25th strychnine, perchloride of iron, and digitalis were prescribed. The pulse was more regular; no rhonchi audible in chest.

January 28.—The murmur at apex is extremely loud, and is certainly compound. The heart's action is more regular, impulse more forcible, and a faint thrill precedes the impulse. She has been allowed to sit up for a short time. Temperature 98.4° to 97.2° on previous days.

Next day, for the first time, some anasarca was noticed in the feet and legs. The œdema rather rapidly increased, and

on February 2 examination showed that the heart was considerably dilated. The note runs:—"Temperature 97.4°. The impulse of the heart is widely diffused; it can be felt in the epigastrium, and thence continuously traced round below the mamma to the posterior limit of the axilla in the seventh and eighth spaces. The axillary impulse is of a slapping character, slightly thrilling; the infra-mammary more forcible and fuller, and the thrill is plainly felt preceding the shock. The thrill is not felt in epigastrium. The area of absolute cardiac dullness begins at the lower border of the fourth rib, and reaches outwards an inch beyond the nipple, rightwards nearly to sternum. Pulmonary resonance is modified in the axilla, but there is no dullness corresponding to the area of impulse. The murmur at apex is very prolonged and blowing, commencing before the systole; it is louder in the axilla than in the mammary line. At aortic cartilage sounds are dull. The murmur is very loud and almost musical over the back—loudest in left vertebral groove, opposite to the eighth dorsal spine. Some fine crepitation is audible over both backs, and there is dullness on percussion at the bases. The abdomen is tympanitic; no signs of ascites. The lower margin of the liver can be felt at the umbilicus, and in nipple-line three inches below costal arch; on the left side it passes beneath the arch at the sixth cartilage. Its surface is firm and resisting; its upper limit of dullness in right mammary line is at the sixth rib.

The anasarca increased to such an extent that, on February 7, Southey's tubes were inserted into each leg. The quantity of digitalis was increased, but the pulse remained very small and irregular, and the urine scanty.

Death occurred on the morning of February 10.

Post-mortem Examination.—Both legs œdematous; the left more so than the right. About eight ounces of turbid fluid escaped from the peritoneal cavity. The liver was considerably enlarged, reaching in the middle line to the umbilicus; the great omentum was folded up, lying over the transverse colon. Old adhesions existed between the gall-bladder and hepatic flexure, and between the lesser curvature of the stomach and the under surface of the liver. A cystic tumour of the size of an orange replaced the left ovary, and occupied the pelvis. The lungs did not collapse on opening the chest; and the pericardium was more uncovered than normal. The apex of the heart lay beneath the sixth rib outside the mammary line. Some old pleuritic adhesions occurred on both sides over the antero-lateral surfaces of the lungs, and at the left base there was recent lymph. About two pints of fluid occurred in the right pleural sac. Heart: Some large, irregular, milky-white patches covered the right auricle and ventricle, which were distended with black clot. The auricle and its appendix were dilated and hypertrophied. On viewing the tricuspid orifice from above, it was seen to be divided into two nearly equal portions by a single fibrous cord, which passed between the free margins of the cusps and gave attachment to some chordæ tendineæ. Each of these apertures admitted the forefinger, the whole orifice being somewhat funnel-shaped and constricted from thickening and cohesion of the valve-cusps. The pulmonary orifice measured three inches and a half in circumference; the valve-cusp slightly adherent along the adjacent edges. The muscular tissue of the ventricle was of good colour, but there were some patches of fatty degeneration in the infundibulum. The left auricle and appendix were dilated, the latter containing a small fibrinous clot, evidently detached from the mitral valve. The mitral orifice was contracted, and its anterior cusp, covered with cretaceous and fibrinous vegetations, projected into the auricle, the endocardium of which opposite to the mass was the seat of a deep crescentic ulceration, three-quarters of an inch long and one-eighth of an inch wide, in the base of which muscular fibres could be seen. There were several smaller erosions in its vicinity. Viewed from below, the mitral orifice appeared rounded, and only admitted the tip of the index finger. The chordæ were thickened, and several had been ulcerated through, their valvular extremities being clothed with cretaceous and fibrinous deposit. The papillary muscles were pale and fibrous; the ventricle dilated and hypertrophied, its wall half an inch thick, and fibres showing granular degeneration. The aortic orifice contracted and incompetent; the edges of cusps thickened and slightly coherent. Some fatty change in aorta above valves. The heart weighed thirteen ounces. There was a large recent infarction in the posterior and upper part of the lower lobe

Let us try to appreciate what this thinking led up to. There is a well-known prelate whose chief recommendation to the post he now fills was a book on the sinfulness of little sins.

These little sins must have forcibly struck him; and, if we may venture to say so, the whole secret of Darwin's work was the careful recognition and study of little facts, often apparently widely apart in their bearing, offering small hope of help in vast speculations; but noted they were, and duly registered. He was truly a genius in his infinite capacity for taking pains. It was this, and nothing but this, which brought home conviction to the minds of men when the great work on the origin of species made its appearance. The recorded facts could not be gainsaid. They were facts, and not false ones. Here rested the power of the book. Everyone who knows anything of the subject knows that many men had been on the same track; nay, that Wallace was so close on Darwin's heels that it was a question who was to be first in announcing to the world what many still look upon as a novel doctrine, but we are not sure that it was not shadowed out by the "many-sided" Goëthe and the wild thinker Oken. Certain it is that in a rough way the descent or ascent of man from beings lower in the scale of life than himself, was boldly announced by Lamarck and the author of the "Vestiges of Creation." But these were speculations merely: the facts adduced were often no facts, but false interpretations of the presentments of nature; some of them were absolute nonsense. Where and how Darwin succeeded was by his carefully observed facts, his rigid adherence to the true investigation of nature. Had he been a skilled and trained physiologist, such as only our profession can supply, he would have had many more at his disposal, for embryology was to him almost unknown, and he never displayed any profound knowledge even of vegetable physiology. But he has lived a most useful and noble life, and he has done a great work, but its grand lesson, as we hold,—and it is one much needed in these days of hurry and glare,—is in much danger of being allowed to sink out of sight. His work on the Origin of Species aroused so much popular antipathy, that it drove men, in order to enable them to controvert it, to inquire for themselves. They were forced to learn and to apply Darwin's own method. But his method is ours. Day by day we have to interrogate nature in that most complex of her products, man himself. And we may all learn a lesson from Darwin. Nothing is too trifling to be overlooked; nothing that we look at should be slackly dealt with. For again we say that the chief lesson to be learnt from Darwin's work is that small things may have mighty results.

OUGHT KOCH'S TUBERCLE-PATHOLOGY TO BE ACCEPTED?

It used to be said that all great discoveries in science took a long time to reach the popular mind. Such at least was the experience of Harvey when he put forth his discovery of the circulation of the blood, and such also was the experience of Jenner when he recommended the practice of vaccination; in each case there were a good many years of neglect, not to mention opposition and obloquy. If we take the experience of the past as our guide, and not our modern sense of what should be, we cannot but conclude that a certain amount of delay attends the recognition and the due estimation of those achievements that are destined to stand the test of time. But it appears that we are going to change all that. On March 24 last, Dr. Koch, of Berlin, announced in that city his discovery, after about one year's work and thought, of the cause of that most destructive of human diseases—consumption; on April 10 he published it to the profession in a German contemporary, sending a copy to Professor Tyndall; and on April 22 that gentleman, as well as an editorial writer in the *Times*, recommended the discovery to the confident and implicit acceptance of the

public. We have not the space to criticise the large-type letter and the editorial article in the leading journal; we merely remark upon the unhesitating character of both. Two or three years ago, Professor Virchow was somewhat pointedly asked by one of the keenest expounders of the bacillus-pathology, Professor Klebs, why he still declined to give his adherence to that well-proved explanation of infective disease. He replied in a long article ("Krankheitswesen und Krankheitsursachen," *Virchow's Archiv*, vol. lxxix., 1880), of which we give only the concluding words. Medical logic, he says, has very moderate achievements to point to, even though it has become an independent subject of study. Preserve us, at least, from losing the rudiments of biological method in our exclusive endeavour to appear exact ("*Hüten wir uns wenigstens davor, dass wir vor lauter Streben nach Exact-Scheinen nicht die Grundlagen der biologischen Methode verlieren!*"). We commend the sentiment to those who are fascinated by the elaborate detail, the strikingly exact and particular procedure, of Dr. Koch; and to the editorial writer in the *Times* we commend our last week's analysis of Koch's paper, as well as the analysis which we gave on December 18, 1881, of the work of Schüller, whose conclusion is accepted by the *Times*, although it is incompatible with the conclusion of Koch. We think it desirable, in view of the now awakened public interest, to amplify somewhat our last week's account of the latter observer's work.

Widespread tubercular disease can be set up in the rabbit, guinea-pig, and some other animals, by inoculating very minute fragments of tubercular tissue under the skin or in other ways. So far, Dr. Koch has done nothing that has not been done many times before. What he professes to have succeeded in doing—Klebs, Schüller, and Toussaint having, according to him, failed therein—was to isolate the "bacillus of tubercle" from all admixture of tubercular tissue, detritus of the tissue, fluids of the tissue, or other particles proper to the tubercular human (or other) body, and to induce tubercular disease in the rabbit and guinea-pig by inoculating the bacilli, *and nothing but the bacilli*. His sixty or more crucial experiments were certainly very uniformly successful—but did his inoculations contain nothing but "the bacilli of tubercle"? It is on the answer to that question that the estimate of Dr. Koch's work must turn, and we have endeavoured to collect the following evidence, as far as possible, in his own words.

What Dr. Koch calls "pure cultures" of bacillus were most simply obtained from tuberculous animals newly killed or just dead. Great pains were taken to open the body and expose the lungs with disinfected instruments; other disinfected instruments were then quickly applied to cut out tubercles from the lungs, and the fragments were at once transferred on heated platinum foil to the test-tube in which the culture was to proceed. We gather that there was no interval of time during which each individual piece of tubercular tissue taken from an animal still warm could have been examined to see whether it contained bacilli or not, or few bacilli or many, or the distinctive kind of bacilli. With tubercles taken with those elaborate precautions from artificially tuberculised guinea-pigs, fifteen "pure cultures" were made; but Dr. Koch did not use any of those cultures for his crucial experiments. His scruple about using them was lest the original bacillus of tubercle should have undergone some change in passing through the body of the artificially inoculated guinea-pig. The cultures which he did use for his experiments were taken from the tuberculous ape, the tuberculous human lung, and the tuberculous bovine lung. In the two last, the specimens came into his hands some time after death; in the case of the ape's tubercles, there is no information afforded us whether they were got from the animal under the same precautions as those used with the

guinea-pig, or whether they were ordinary dead-house specimens; and we cannot but regret the uncertainty on that point, inasmuch as more than thirty of the crucial experiments were made from the ape, the remaining thirty being made from the human or bovine lungs. Dr. Koch had more difficulty in cultivating the bacillus from dead-house specimens than from the newly killed animal. "Those pieces of tubercle," he says, "whose removal from the body I could not personally look after, using the above-mentioned precautions, I took and washed carefully and repeatedly in sublimate solution; I then stripped off the outer layers with heated instruments, and I extracted a piece for inoculation from a depth to which *it was to be expected* that the bacteria of putrefaction could not have penetrated." The words which we have emphasised seem to imply, as does the general tenor of the procedure, that the bacteria of putrefaction were not shown to be absent in each particular case; and there is an equal want of evidence to show that, in each particular case, the bacilli of tubercle were present. However, with those fragments of tuberculous substance, such as they were, the cultures were begun.

We shall not repeat our analysis of last week, except in order to amplify one or two points. The fragments are placed upon a layer of coagulated blood-plasma in the test-tube, and the test-tube (stopped with cotton-wool) is placed in an oven heated up to 100° Fahr. "If there occurs in the first days a quickly extending bacterial growth, proceeding from the inoculation-substance, or even remote from it, and appearing usually as white, grey, or yellow drops, often associated with liquefaction of the firm blood-serum, then there is impurity present, and the experiment has miscarried." If, however, nothing remarkable occurs until after ten days, no impurity is thought of, and there is supposed to be pure culture. "The cultures proceeding from the growth of tubercle-bacilli first appear to the naked eye in the second week after sowing, usually after the first ten days, as very small points and dry-looking scales, which surround the deposited pieces of tubercle in wider or narrower circles, according as, in the sowing, the tubercle mass had been more or less crushed, and brought, by rubbing movements, into contact with more or less of the nutrient soil. When only very few bacilli occurred in the material sown, then one hardly succeeded in freeing the bacilli from the tissue, and in bringing them directly upon the nutrient soil; in this case the colonies of them develop in the interior of the deposited pieces of tissue, and one sees, if the latter be transparent enough (*e.g.*, in pieces taken from scrofulous glands), certain points which are dark with transmitted light, and white by direct illumination. With the help of a low power (thirty to forty diameters), the bacillus colonies are observable towards the end of the first week. . . . Up to a certain point, the growth of these colonies proceeds during three or four weeks; they enlarge to flat, scale-like pieces, for the most part falling short of the size of a millet-seed, lying loose on the nutrient soil, never penetrating independently into the latter, or causing it to liquefy. Further, the colony of bacilli forms a mass so compact that the small scale can be easily lifted entire from the firm blood-serum by means of platinum-foil, and can only be broken up under the application of a certain amount of pressure." No other bacillus but the tubercle-bacillus shows the same "slowness of growth," or the same scaliness and firmness in its colonial aggregates. Other kinds of soil besides the coagulated blood-plasma were tried, "but on these there grew only irregular small crumbs, and never so characteristic vegetations as on the blood-serum." After a few weeks the growth of the scales (colonies) ceases. "A few scales are lifted with heated platinum foil, transferred to a fresh test-tube containing sterilised and coagulated

serum, pressed down upon that nutrient soil, and spread out as much as possible. After an equal interval, there again result scale-like dry masses, which become confluent or cover a larger or smaller part of the surface of blood-serum, according to the extent of the sowing. In this way are the cultures continued." After these dried scales had been put through the process often enough, they were inoculated upon animals, and extensive tuberculosis resulted. Dr. Koch does not tell us whether he transferred the whole or only a part of his original culture, and of each successive culture, to the fresh test-tube, and whether the scales grew, in the successive cultures, in a geometrical or even in an arithmetical progression; and he does not say, except in one place where he speaks of "a small crumb," how much scaly substance he inoculated with.

Stripped of all its technical, not to say cabalistic, culture-terminology, the experiment seems to us to have consisted in taking pieces of tubercle from the dead-house, and exposing them for several weeks in a test-tube to 100° Fahr. of dry heat; dry scales or crusts (swarming with organisms) were taken from the test-tube and transferred to other test-tubes; and so on for about three to six months; at the end of which time the dry, scaly substance, whatever it had become, was inoculated upon guinea-pigs or rabbits, and produced tuberculosis. Dr. Koch's account of the matter is not quite so bald as that: the disinfected scissors, forceps, and scalpel, the heated platinum foil, the corrosive sublimate, the sterilised serum coagulated to a firm yet transparent nutrient soil, the plug of cotton-wool, the colouring with methyl-blue and the resistance to vesuvium, the succession of test-tubes,—all these and many more are exact attentions to matters of detail which enter into the logical problem with almost as much complexity as the ingredients in the cauldron of Macbeth's witches. But the *Times* and the public ought not to forget that there are other and not quite identical bacilli of tubercle in the field—or, rather, in the air. There are the bacillus of Klebs, the bacillus of Aufrecht, the micrococcus of Schüller, and the micrococcus of Toussaint. If we may continue our Shakespearian reference, there are—

"Black spirits and white, red spirits and grey;
Mingle, mingle, mingle,—mingle you that may."

THE LAST OF LAMSON.

THE final fiat has gone forth; the Home Secretary has sent the *abe in pacem* to the convict Lamson, and in all probability, before this reaches the eyes of our readers, he will be no more. We cannot see how it could have been otherwise, and the obloquy which has been poured on the Government for giving a respite was little deserved. Sir William Harcourt has proved himself a master of vituperation, and what has been said of him by men who ought to know better, we trust will teach him that, when mud-throwing becomes universal, even a past master in the art may be surpassed by apprentices. But though we do not greatly admire Sir William's accomplishments in this line, justice is justice, and we must say that in this instance he has done what is right. How could an assertion from such a man as the President of the United States, that important evidence with regard to Lamson's insanity was coming over, be passed by? Had such a statement come even from a reckless partisan the thing would have demanded attention; how much more, then, as coming from the head of that great nation which is our own by kith and kin! It has been urged that the action of the Home Secretary was cruel; but if so, the Home Secretary was not to blame, and is most surely absolved from all blame. Eager and anxious to cast from them the reflection of the guilt of such a murder, Lamson's friends have not hesitated to sap up the mass of so-called evidence they have

contrived to bring together, all tending to show that the man was insane. Insanity they do not seem to mind, so long as they can get the stigma of the gallows removed from them.

And now as to this plea of insanity which has been raised: it seems to consist of two distinct factors—one of heredity, one of the abuse of opium. The former may be dealt with very tersely. An aunt had puerperal mania, distinctly stated as not hereditary. Puerperal mania seldom is, especially as regards the male. Lamson's grandmother died in an asylum; she was seventy-six years old, and was registered as suffering from senile dementia. A grand-uncle also died in an asylum, aged eighty-seven, likewise registered as suffering from senile dementia. If the matter were not one of life and death such "evidence" would be laughable.

And this leads easily to the second plea, that of *Morphium-sucht* or morphia disease. We have not yet reached the length of calling it morphia madness—the craving is quite enough. There are few practitioners in London who have not had at one time or another visits from the unfortunate people—commonly women—who have this craving, though few of them seem to have carried it to the extent, if we are to believe all we read and hear, that Lamson did. That Lamson was truthless there can be no doubt, but we have never heard that morphia has any special influence on this common failing. Sometimes it has been said lying is hereditary in a family. No attempt has been made to make this out in Lamson's case. One of the strongest witnesses as to his lying was the Bournemouth coachman. We should rather have thought that the stronger evidence of insanity was Lamson's having a coachman at all. Bournemouth is not such a vast city that its distances cannot be easily overcome on foot, and there is no evidence that Lamson's resources or his practice demanded such a sacrifice as even "keeping a gig."

There is, again, the talk of Lamson's reckless use of aconitine, especially in the East; but where did he get it? Aconitine is rather a rare drug, and one might go into a good many shops without finding a sample, but if he administered it he must have had it, and if he had it he must either have made it or got it from somebody else. Where is the affidavit as regards this? But to come to the final part of the whole business—was Lamson insane when, as now by their own avowal his friends admit, he committed the crime of administering a more than poisonous dose of aconitine to Percy John? Everything goes against it. Attempts had been made by him to kill the boy before, for there were the aconitine powders mixed with quinine in his possession, which had been duly supplied by Lamson. The man was desperate; he did not know where to turn for a penny. He knew he was liable to be taken into custody any day for swindling; but he halted and he hesitated. At last, having secured by a false cheque enough money to get away with, and having secured the poison, he proceeded to administer it on a well-arranged plan. He was evidently of opinion that aconitine could not be surely detected, and that the fatal attack might have been taken for an acute gastric catarrh, as he had procured and supplied to the boy plenty of indigestible stuff. He might have succeeded but for the inevitable bungling of those who have not studied murder as one of the fine arts,—had it not been for the purchase and the attempted purchase of aconitine, and the impossibility of accounting for the aconitine which was purchased. There was plenty of folly, but no apparent insanity about all this. Whether or no, the doctrines laid down by a writer in the *Times* are worthy of all consideration. When a man is raving mad it is clear that he cannot be accountable for his actions. But if a man goes deliberately to a public-house and purposely drinks

himself into a state of fury, and then goes home and kicks his wife to death, he must be held responsible. And if a man takes opium or morphia to keep himself in a state of exaltation, or to nerve himself for a deed well thought over he is no fit subject for deliverance from the gallows.

THE MACLEAN CASE.

No point of doubt or difficulty arose in the trial at Reading on the 19th instant of Roderick Maclean, whose attempt on the life of the Queen at Windsor on March 2 caused such deep and universal indignation throughout the country. The only wonder is that a special commission, two judges (one of them the Lord Chief Justice of England), and so much stately formality should have been thought necessary in so plain-sailing a case; for it must have been foreseen that it would be no hard matter to decide that the perpetrator of so infatuated a crime, with such antecedents as were known to the prosecution, could not be in his right senses.

The plea of insanity in the case of Maclean was obviously not an after-thought, nor mere expedient of defence against the consequences of his foolish and wicked offence, for he had been indisputably of unsound mind long before he assailed the Queen. In 1866 it appears Maclean had a serious scalp-wound, for which he was attended by Dr. F. Smith, of South Kensington; and in 1874 his mind was certainly disordered to some extent, for Dr. Maudsley, who examined him at that time, certified that he was not of sound mind, and required supervision to prevent him from doing mischief, the character of his mental symptoms being such even then as to lead Dr. Maudsley to form the unfavourable prognosis that he would not recover, but would probably become gradually worse. Dr. Goodrich, whose professional advice was also sought in 1874 by the father of the youth, who had become anxious about him, and thought the parish should be responsible for him as a dangerous lunatic, arrived at a conclusion identical with that of Dr. Maudsley, and certified that the signs of insanity which Maclean exhibited, although scarcely sufficient to warrant his incarceration in a lunatic asylum, were such as to require a very careful watch to be kept over him, to avoid injury to himself or others. From 1874 to 1880 we have no information about Maclean's condition or circumstances, except that he stayed with his friend, Mr. Stainsby, for a short period in 1877, and was then regarded as insane, being also subject to fits; but in 1880 we have abundant proof that Dr. Maudsley's prediction had been verified, and that Maclean had slipped far down the incline of madness. His letters written at this time—and, like most deluded lunatics, he appears to have been a copious letter-writer—have the inimitable twang of madness in every sentence. They reveal delusions of the most dangerous and tenacious type—delusions of persecution,—and show that, under the tutelage of these delusions, he was already ripe for homicide. In his miserable and diseased egotism he conceived that millions of persons were against him, and that if people continued to display their antagonism to him by wearing blue he would be justified in committing murder. His morbid ideas and amiable intentions had at this date obtained other than epistolary expression, for they excited alarm amongst his neighbours at Weston-super-Mare, so that Dr. Hitchens was called in, and he being satisfied that Maclean was a full-blown maniac with a propensity to kill, he was removed promptly to the Somerset County Asylum at Wells, where he remained for upwards of twelve months. At the asylum he apparently underwent some improvement. The regular habits, freedom from anxiety about daily bread, occupation and the moral control exercised over him, and also probably the strong desire to regain his

liberty, enabled him at least to suppress his delusions and to earn the reputation of having recovered. Mr. T. S. Sheldon, Assistant Medical Officer of the Asylum, thinks that his delusions vanished when the mental agitation subsided under which he was labouring when admitted, and that he had really recovered or was in a genuine lucid interval of protracted duration when discharged on probation; but few medical psychologists will now, we think, on a review of the whole case, share Mr. Sheldon's opinion on this point. Maclean had for a long time—probably for years before being sent to the asylum—laboured under delusions of a kind which are, as a rule, firmly persistent, and rarely if ever intermittent; and soon after his discharge the same delusions are found to be again in possession of his mind. The likelihood therefore is that these delusions were never dislodged, but only retired for a season, and that, however cleverly he may have dissembled or prudently kept his own counsels, he still believed when he left the asylum that he was the victim of a cruel combination of persons bent on his ruin and expatriation, and that it was his privilege to take revenge on the English people. These delusions it was that led—perhaps in alliance with a silly craving for notoriety—to his attempt on the life of the Queen; and these delusions are with him still. Dr. Manning, Professor Sheppard, and Dr. Orange had no difficulty in eliciting from him a profession of his unshaken belief in the old delusive creed while he was awaiting trial in the Reading Gaol, and this too at a time when he was writing letters of a comparatively reasonable character respecting his offence, and expressing his fidelity to Her Majesty's person.

The jury unhesitatingly found Roderick Maclean of unsound mind, and not a word has been said against this verdict, even by those self-sufficient critics who think they know more about medicine than doctors, and are ever ready to discount the plea of insanity in a capital case. The Judge felt it his duty to go over the old ground, and to inquire diligently whether the prisoner could distinguish between right and wrong, and whether he possessed moral control sufficient to enable him to resist an impulse; but all who looked on the dilapidated being in the dock, with his pale face, vacant expression, and restless manner, and who heard his pitiable letters, felt that this was not a case for the chopping of psychological logic, but that Maclean was mad from the sole of his foot to the crown of his head, and ought to be taken to Broadmoor without delay. There he has now been taken, and there, under the charge of Dr. Orange, he will be kept in safety, and will be made as comfortable and happy as it is possible for a life-long captive with a morbidly embittered mind to be.

Although the principal issue was clear enough in the case of Maclean, and gave rise to no divergence of medical opinion, there were some minor points about which there was a rather unfortunate want of unanimity. Thus, while all of them thought him insane, the medical witnesses do not seem to have been able to agree as to the precise form of insanity which he was labouring under. Either the nomenclature of psychological medicine must be in a confused state, or there must be immense latitude allowed in its application. One witness spoke of delusional insanity, another of homicidal mania, a third of imbecility—a diversity in the use of terms which is much to be regretted, as it leads the public to believe that there is no such thing as precision in diagnosis, but that every doctor takes his own private view of every case. We shall not pretend to decide between the discordant experts in the Maclean case further than to say that his letters do not bear out the theory of imbecility, evincing, as they do, an amount of education, a power of expression, and a range of thought, that are inconsistent with the received idea of congenital mental defect. En-

grossing delusions of course tend, if we may so say, to starve those regions of mind with which they are not immediately concerned, and there will always be some weakness of intellect and feeling in those who have been long dominated by them; but this is not what is understood by imbecility, a term which does not include either the waywardness or the oddities of the insane diathesis, so often seen in youth in those foredoomed to frenzy in their mature years. Maclean's letters point decidedly to delusional insanity (the monomania of suspicion, as it is often called), in which an irrational belief in persecution of some kind—generally of an occult and mysterious description—is the central fact. Morbid ramifications from this central fact, this core, spread out in such cases in various directions, and, according to their extent and distribution, impart their peculiarities to individual cases; but the suspicious delusions ever remain the essential feature of the condition, and neither their morbid outgrowths nor rational consequences need lead to any change of name. And it is important to remember that delusions may have rational consequences, and that a lunatic may deduce reasonable conclusions from insane premises, and commit acts which look insane simply because they are connected with delusions, but which would be sane enough were the delusions well-founded beliefs. Is it to be wondered at that a man who imagines himself to be pursued by the most malignant and undeserved persecutions, who believes that his prospects have been blighted, his health ruined, and his reputation blasted by fiendish enemies, against whom he is denied all legal redress, should at length be goaded into turning against his tormentors, and should kill some one whom he is fully persuaded is one of the chief of them? And are we to say that such a man labours under homicidal mania? He has no propensity to kill, takes no delight in blood, but is driven to kill in self-defence or out of wild revenge. We might as well say that the man who shoots a burglar, or slays some one caught in adulterous intercourse with his wife, labours under homicidal mania. In the latter cases it is overpowering passion born of terrible truths that is at work; in the former it is overpowering passion born of delusive lies. In no such cases is there that killing for its own sake and for the love of it, or in obedience to a blind and turbulent impulse, that we associate with the idea of homicidal mania.

Some practical lessons are to be learned from the Maclean case, and one of these is that deluded lunatics should not be left wandering at large, to the danger of the lieges and of the empire. Five times during her reign has Her Majesty been subjected to attacks, and on each occasion it has afterwards appeared that her assailant had manifested symptoms of insanity long previous to the regicidal attempt—symptoms which ought to have insured precautionary measures. Oxford, Francis, Bean, O'Connor, and Maclean were all of them more or less unaccountable for their actions, and all of them ought to have been under vigilant supervision, if not immured in a madhouse. And less conspicuous persons than Her Majesty are daily suffering from the actions of such more or less unaccountable beings. Could an exhaustive record be prepared of the outrages and intimidation practised, and the impoverishment and misery occasioned, during any one year by lunatics at large in this country, there would be an instant demand for more stringent control than now exists over those workers of misery and devastation. The protection of the insane is all very well, but the protection of the sane is the primary consideration, and fortunately the two kinds of protection are not incompatible with each other. Liberty need not be allowed to degenerate into licence, and our regard for the freedom of the subject must not lead us to place the

Sovereign in needless jeopardy, and to allow social explosives to lie scattered through innumerable homes. We have no wish to plead for the incarceration of the lunatics who are now at large,—we are in favour of an extension, rather than a curtailment, of the domiciliary treatment of the insane,—but we should insist on a careful selection of those cases which are to be placed under domiciliary treatment, and on a strict registration of all lunatics. A lunatic may be dangerous to the community, like a patient suffering from small-pox or scarlet fever, and if he is to be kept at home or boarded in a private house his neighbours should have some assurance that proper precautions have been taken that he shall not prove offensive nor cause harm to anyone. But it will be impossible to obtain any such assurance until there is compulsory registration of all lunatics, whether kept for profit or not, with competent inspection. It is admitted on all hands that some lunatics require the restraints of an asylum, while others may go on very well in private homes; but as yet we have no complete system enabling us to *know* that all lunatics are in asylums who ought to be there, and that none are detained in asylums who could conduct themselves with propriety in private homes.

Another lesson to be drawn from the Maclean case is, that it would be desirable to have a medical certificate of sanity whenever a patient is discharged recovered from an asylum, similar to the medical certificate of insanity given when he is placed there. At present, the medical officer of the asylum merely recommends in writing that the recovered patient should be discharged, but does not set forth the grounds on which that recommendation is founded. To call upon him to state briefly the reasons which induce him to believe that recovery has taken place would be to insure a careful examination, a review of the case as a whole, and a high sense of responsibility. No doubt all this already takes place in a large majority of instances, the asylum case-books containing the information which we propose to incorporate in a certificate, but a formal document containing the proofs of the recovery in a shape intelligible to the lay mind would, we think, be a reliable safeguard against premature or injudicious discharge, and would be a valuable protection to asylum medical officers themselves, in certain events, against any suspicion that they had acted rashly or without deliberation.

THE WEEK.

TOPICS OF THE DAY.

It is generally conceded that no Act of Parliament can be drawn sufficiently exact and comprehensive to avoid litigation; and consequently what—presumably from a legal point of view—are called “interesting points” are continually cropping up for decision. Recently, at the Epsom Petty Sessions, one of these “points” was raised as to the powers of the Thames Conservancy Commissioners. In the year 1879 the Commissioners served a notice upon the Epsom Rural Sanitary Authority, requiring them within thirteen months to discontinue the flow of sewage or offensive matter into the river Mole, one of the tributaries of the Thames. The notice was not complied with, and in the latter months of 1880 proceedings were taken against the same Authority for polluting the Mole at Leatherhead, a point less than ten miles distant from the Thames. The summons was, however, dismissed, on the ground that the pipes from which the sewage was discharged were under the control of another authority. On the present occasion the Epsom Rural Sanitary Authority were again summoned for permitting the pollution of a tributary of the Thames, the offence in this case being alleged to be at Sutton. The

pollution was acknowledged, but it was alleged that the drain from which the offensive matter was discharged was under the control of the Highway Board; and, further, that no notice had been served in respect of this particular offence. On behalf of the Conservancy Commissioners it was contended that when a notice was once served upon an authority it referred to all offences committed within their jurisdiction, and not to one particular place, and that therefore the notice given in 1879 was sufficient. The magistrates, after retiring to consider the point, held that the objection was fatal, and that the Commissioners were bound to give notice in respect to each place where it was alleged pollution was caused. They, however, granted permission to the Commissioners to state a case for a superior court.

The thirty-third anniversary festival of the Asylum for Idiots was recently held at the Albion Tavern; Alderman Fowler, M.P., presiding. In the course of his remarks the Chairman referred to the large amount of Royal patronage which had been bestowed on the Asylum. It was, however, he said, to the philanthropy of the late Dr. Andrew Reed that the charity owed its foundation. It was established to meet the case of those who had not the means of taking care of their suffering relatives. There were also rooms for paying patients, who benefited by the best medical skill and experienced nursing. At the end of 1880, 2041 patients had passed under the care of the institution. There was still a debt of £2000 to be cleared off, and the Committee were desirous of putting the laundry into satisfactory order. If the necessary funds were only forthcoming, 300 additional inmates could be accommodated. Mr. James Abbis, the Treasurer of the Asylum, explained that they had £10,000 invested in the funds, but he hoped that the benevolent public would assist them in keeping that sum intact. Sir Henry Parkes, Prime Minister of New South Wales, informed the company that near Sydney there had been erected a building in all respects similar to the Earlswood Asylum, at a cost of £200,000. In response to the present appeal, subscriptions and donations were announced amounting to upwards of £2500.

In this age of “advanced” instruction and of diffusion of knowledge, it might be expected to be understood that it does not satisfy sanitary requirements to construct efficient sewers in our large towns, but that care should also be taken to ascertain that every dwelling is placed in complete connexion with them. We cannot too often insist that, in fact, every vestry or local board should be in possession of an accurate map of the district, showing the underground plans of the whole sewage arrangements. This would enable them to be certain that no house in their several localities was likely to develop unsanitary conditions from any defect in the method of getting rid of its sewage. More than that, we contend, as we have more than once argued, that the lease of every house ought to include as an integral part of it a certified plan of the house’s sewers and drains. We are prompted to make these remarks now by a communication which recently appeared in the public press from a City firm. This firm occupies premises in King William-street, London-bridge, and having a few cases of suspicious sore-throat in the house, they sent for plumbers to examine the drains. Inspection proved that the sewage was, and had been for some years, accumulating under the basement. The City Commission of Sewers was at once applied to, and the sanitary inspector for the district was ordered to institute an investigation, the result proving that, although a new sewer runs down the centre of King William-street, the houses—in many cases, at least—are not connected with it, but still communicate with the old brick drains which run down each side of the street, and which

have been known for some time to be blocked. We are not, of course, responsible for the correctness of these statements, but if such a state of affairs really exists in the heart of the City, the importance of our suggestions will be easily appreciated.

On behalf of the Metropolitan Board of Works, Sir James McGarel Hogg, M.P., has introduced a Bill into Parliament, applying for a variety of additional powers with respect to the management of existing streets, the formation of new streets, and the regulation of buildings. It contains provisions requiring the sanction of the Board to the laying out of new roads which will not afford direct communication between two streets, and of new streets for foot traffic only. Restrictions as to open spaces are imposed on newly erected dwelling-houses; the open space is to be at least 150 square feet for a frontage of less than 15 feet; 200 square feet where the frontage is between 15 feet and 20 feet; 300 square feet between 20 feet and 30 feet; and 400 square feet in all cases where the frontage exceeds 30 feet. Perhaps the most important clauses are those which deal with buildings that are ruinous, or so far dilapidated as thereby to have become unfit for use or occupation, or are from neglect or otherwise in a structural condition that is prejudicial to the property or the inhabitants of the neighbourhood. It will enable the Board to obtain an order from a magistrate directing the owner, or in his default the occupier, to take down, or repair, or rebuild the neglected structure. In case of disobedience to the order, the Board is to be authorised to execute it, and recover the expenses from the owner.

A shocking case of culpable negligence is reported to have recently occurred in the Holbeach Union, Lincolnshire. A young man, a pauper named Ringham, an inmate of the Union, had been suffering from a skin disease, and was placed in a fumigating box used to disinfect persons suffering from infectious diseases. It is not stated whether this course was adopted on the recommendation of any medical officer, but it would appear that the man complained of the heat, and said he should die if he were not taken out. Two persons who were in the room represented his condition to the master, but the latter, it is said, refused to let Ringham out, and left the room: on his return the man was insensible and apparently dead; this was not actually the case, although he died shortly afterwards. At the inquest it was stated that too much sulphur had been used, and that the heated irons applied to the sulphur were too large, causing the flame to reach to the bottom of the box in which the deceased stood. The coroner's jury, after an inquiry lasting twelve hours, returned a verdict of manslaughter against the master of the union.

In accordance with the arrangements previously announced, the Duchess of Edinburgh, on the 18th inst., laid the foundation-stone of the new St. Andrew's Convalescent Home at Folkestone. The religious portion of the ceremony was conducted by the Vicar of Folkestone, the service being choral. As previously explained in these columns, the business of the Home has hitherto been carried on in two ordinary houses rented for the purpose, and very imperfectly adapted for the work; nevertheless, nearly three thousand patients have been received and cared for, since the opening of the institution, even with this inadequate accommodation, but latterly the applications for admittance have been so numerous that it became absolutely necessary to provide a new building. By the kind consideration of the lord of the manor, the Earl of Radnor, who is one of the patrons of the charity, an excellent site in a healthy situation, on high ground overlooking the sea, has been secured on easy terms, with sufficient land around it to serve as a pleasant garden for the use of the patients. The sum required to complete the building now

about to be constructed is estimated at £9000, in addition to the £7000 already subscribed.

The Lea Conservancy Board has served notices on the St. Pancras and Islington authorities to abate an alleged pollution of a brook, a tributary of the Lea, which runs near the Finchley cemeteries of these parishes. The brook in question is open, and a few years ago contained fish, while now it is an unquestionable nuisance for a considerable part of its course. The authorities of St. Pancras and Islington allege that it is polluted by the drainage of the township that has sprung up at Finchley. The pollution of the Lea is also occasioned by the township of Leyton, on the eastern side of the river, which has now a large population. To meet the necessity of purifying the drainage into the river Lea, the local authorities propose to adopt the plans of the Rivers' Purification Association, of Gresham House, London, which for about ten years has purified the Warwickshire river Sherbourne from the sewage and trade drainage of Coventry, and has done the same for a lesser period for the town of Hertford, the drainage of which formerly passed into the Lea. The system of the Rivers' Purification Association utilises the solids obtained in the course of purifying, and retains them in a compressed form, devoid of any offensiveness; but so little is river purification carried out, that scarcely any market has as yet been created for the product, although some of the most eminent chemists testify to its great value as manure.

We admire the courage that has prompted some of the profession to enter on a public crusade against "fashion," but at the same time we own to many and grave doubts as to the slightest public good resulting therefrom. Nothing, however, can be achieved without a trial, and on Saturday afternoon last Mr. E. Noble Smith, F.R.C.S. Edin., following in the steps of Mr. F. Treves, delivered a lecture at the Hampstead Vestry Hall, in connexion with the National Health Society, on "Modern Dress and Fashionable Deformities." Mr. T. Spencer Wells presided. The lecturer, whose remarks were illustrated by diagrams, models, etc., dealt with the evils resulting from tight lacing, low-necked dresses, high-heeled, short, and tight boots and shoes, and also pointed out the injurious effects of the present style of ordinary feminine attire, which impeded the free movement of the limbs and muscles without which perfect health could not exist. He contended that beauty and health alike suffered from the fashions referred to, and commended to the attention of the audience a "divided hygienic skirt" costume made under the auspices of the National Health Society. He also strongly advocated exercise—impossible in fashionable garments of the present day—as a cure for many ills from which ladies were at this time suffering.

NEW STANDING RULES OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following important notice respecting rejections has just been sent to the deans of the metropolitan and provincial schools, etc.:—

"A candidate referred for three months on the Primary Examination for the diploma of Member is required, before being admitted to re-examination, to produce a certificate that he has pursued, to the satisfaction of his teachers, his anatomical and physiological studies in a recognised medical school during a period of three months subsequently to the date of his reference.

"A candidate referred for six months on the Primary Examination for the diploma of Member is required, before being admitted to re-examination, to produce a certificate of having performed dissections during three months, and of having pursued, to the satisfaction of his teachers, his

anatomical and physiological studies in a recognised medical school during six months subsequently to the date of his reference."

The importance of these new regulations cannot be over-estimated, and we may have occasion to reflect on their real bearing.

STATE SCIENTIFIC ANALYST.

THE President of the Royal College of Physicians of London has nominated Dr. Stevenson, of Guy's Hospital, to the post of Scientific Analyst to conduct any analyses of bodies of deceased persons that may be ordered by the Secretary of State in the interests of justice during the year beginning May 1 next.

THE ADVANCEMENT OF MEDICAL SCIENCE BY RESEARCH.

THE Council of the Association having this object, which was formed at the influential representative meeting reported in these columns on March 28, held its first meeting at the Royal College of Physicians on Thursday, the 20th inst. Besides the *ex officio* members representing the Scotch and Irish Universities, the British Medical Association, and the Medical Societies, the Council consists (by the third rule passed last month) of members specially nominated by the President of the College of Physicians and the President of the College of Surgeons. The list so nominated for the present year is as follows:—Sir William Gull, Sir Risdon Bennett, Professor Burdon-Sanderson, Drs. Quain, Andrew Clark, Lauder Brunton, Payne, Pye-Smith, Roberts (Manchester), Michael Foster (Cambridge), Balthazar Foster (Birmingham), and Dr. Farquharson, M.P., Sir James Paget, Mr. Darwin, Sir Joseph Fayrer, Mr. Bowman, Professor Huxley, Mr. Simon, Mr. Spencer Wells, Professor Gamgee (Manchester), Professor Gerald Yeo, Mr. Hutchinson, Dr. McDonnell (Dublin), and Mr. Teale (Leeds). The lamented death of Mr. Darwin occurred on the day before the first meeting of the Council. The great naturalist, himself the son, the grandson, and the father of physicians, took the warmest interest in the new Association from the first, and was a munificent subscriber to its funds. The vacancy in the Council caused by his decease was filled up on Thursday by the nomination of Sir Henry Thompson. Sir William Jenner, the President of the Association, took the chair. The offices of Vice-Chairman of Council, Treasurer, and Secretary were filled up as follows:—Vice-Chairman, Sir James Paget; Treasurer, Dr. Wilks; Secretary, Dr. Pye-Smith. An Executive Committee was then chosen from the Council, to consist of the following members:—Mr. Bowman, Dr. Brunton, Dr. Andrew Clark, Dr. Matthews Duncan, Dr. Farquharson, Professor Flower, Dr. Michael Foster, Sir William Gull, Professor Huxley, Professor Humphry, Mr. Lister, Mr. Marshall, Dr. Payne, Dr. Quain, Professor Sanderson, Mr. Spencer Wells, Professor Gerald Yeo. The first duty assigned to this Committee was the appointment of Corresponding Members of Council in each of the most important cities and towns throughout the kingdom, so as to enlist the support of the whole profession in this endeavour "to promote those exact researches in physiology, pathology, and therapeutics, which are essential to sound progress in the art of healing, and to remove any hindrances which obstruct these researches." Before separating, the Council passed a cordial vote of thanks to Professor Gerald Yeo for the zealous services he has rendered as Provisional Secretary during the formation of the Association. A first list of subscriptions will shortly be published. Letters to the Treasurer should be addressed—Dr. Samuel Wilks, F.R.S., 72, Grosvenor-street, W.; and those to the Honorary Secretary, Dr. Pye-Smith, 54, Harley-street, W.

THE CHAIR OF NATURAL HISTORY IN THE UNIVERSITY OF EDINBURGH.

DR. J. COSSAR EWART, Professor of Natural History in the University of Aberdeen, has been appointed to the similar chair in the University of Edinburgh, rendered vacant by the resignation of Mr. Ray Lankester. Words would probably fail us to express, without discourtesy, our opinion of Dr. Lankester's conduct. But he may be assured that it will not be forgotten.

THE OFFICE OF MEDICAL SUPERINTENDENT OF HEALTH FOR DUBLIN.

AT a meeting of the Corporation of Dublin held on Monday, April 24, the Town Clerk read a letter from the Secretary of the Local Government Board for Ireland, acknowledging receipt of the Solicitor-General's opinion relative to the amount to be recouped to the Corporation on account of the proposed salary of Dr. Cameron as medical superintendent officer of health and executive sanitary officer, and stating that the Board have again given the subject careful consideration, and they do not see any reason to alter the views expressed in their letter of January 13 last. It was moved that the letter be considered by a committee of the whole house, in order to consider the best course for the Council to take now under the circumstances of the entire salary being thrown on the Corporation, except the sum of £95 per annum, as adhered to in the letter. It appears certainly to have been conveyed to the Council that the £1000 Dr. Cameron was to receive was only to cost the citizens £500. As an amendment to the above-mentioned resolution it was moved—"That the Public Health Committee be directed to carry out the resolution of Council of September 19, 1881, with reference to the appointment of Dr. Cameron at a salary of £1000 per annum, and that the members of the house, who were also members of Parliament, be requested to draw the attention of the House of Commons to the refusal of the Local Government Board to recoup £350 of the salary agreed to be paid to Dr. Cameron, notwithstanding that the Solicitor-General has given his opinion that the said recompense is a just and fair one." And this, on a division after a prolonged discussion, was carried by a large majority.

THE PARIS WEEKLY RETURN.

THE number of deaths for the fifteenth week of 1882, terminating April 13, was 1208 (642 males and 566 females), and among these there were from typhoid fever 53, small-pox 25, measles 33, scarlatina 6, pertussis 7, diphtheria and croup 51, erysipelas 6, and puerperal infections 6. There were also 41 deaths from tubercular and acute cerebral meningitis, 260 from phthisis, 40 from acute bronchitis, 106 from pneumonia, 79 from infantile athrepsia (28 of the infants having been wholly or partially suckled), and 37 violent deaths (33 males and 4 females). The number of deaths for the week is below the mean of the four last weeks, and as compared with last week the deaths from diphtheria have diminished from 70 to 51; but typhoid caused 53 in place of 41 deaths, small-pox 25 instead of 15, and measles 33 instead of 23. The improvement in the general mortality does not apply to that from affections of the respiratory organs, which continues high, nor to that from epidemics, which, taken altogether, have caused more deaths. The week has been especially remarkable for the great diminution of the number of deaths from affections of the nervous system, as meningitis and diseases of the cerebro-spinal apparatus. The improvement in the mortality has chiefly shown itself in the ages at the extremes of life. The births for the week amounted to 1194, viz., 600 males (433 legitimate and 167

illegitimate) and 594 females (437 legitimate and 157 illegitimate): 108 infants were either born dead or died within twenty-four hours, viz., 63 males (45 legitimate and 18 illegitimate) and 45 females (33 legitimate and 12 illegitimate).

OPENING OF A PUBLIC ABATTOIR FOR DUBLIN.

ON Tuesday, April 11, the Right Hon. the Lord Mayor of Dublin, attended by the civic officers, formally opened a new public abattoir which has been constructed near the Cattle Market, North Circular-road, Dublin, from plans prepared by Mr. Parke Neville, city engineer, at a cost of £16,000; Mr. Joseph Kelley, of Thomas-street, Dublin, being the contractor. The advantages which may fairly be expected to result from the use of the abattoir are briefly as follows:—Animals will be slaughtered in it in the most humane way that can be devised; their carcasses will be dressed in a cleanly manner; due precautions will be taken to prevent any diseased carcasses from being used as food for man; the flesh and offal incidental to a slaughter-house will be disposed of in a manner least likely to be prejudicial to health. Lastly, and most important of all, the use of the abattoir will gradually, it is hoped, lead to the disuse of those of the slaughter-houses which, being situated in the oldest and most crowded parts of the city, are not capable of improvement. The special advantages which the abattoir possesses are its ready access from the cattle market, its open and, in all respects, healthy situation, an abundant supply of pure water, and its capability of expansion, if required, to meet the wants of the whole city, or even of the whole metropolis, with its 349,293 inhabitants. Great attention has been paid to the paving, lighting, and sewerage of all the departments of the abattoir; and to the size, construction, ventilation, etc., of all the buildings and offices.

THE MATRICULATION EXAMINATIONS AT THE UNIVERSITY OF LONDON.

THE character of the examinations for matriculation at the University of London is a subject of great importance, and one which specially interests the medical profession. Matriculation at the London University is now generally recognised as one of the chief portals to professional study of every kind in England; and therefore the result of this examination is frequently a turning-point in the early career of hundreds of boys (and, we may now add, of girls) every year. Beyond this, there can be no question that the character of the examinations at the University of London powerfully influences the teaching in our higher schools throughout the country. For these reasons the matriculation papers have always been subjected to careful and even anxious criticism by educationalists; and complaints have been made when the questions were considered to be unsatisfactory. Within the last few years complaints have been becoming more numerous and more urgent that the standard which the candidate was required to reach was pitched too high; and at last it has been with real alarm that those who were most interested in the University of London came to learn that in this respect the matriculation examination was becoming thoroughly faulty. Of the eight subjects, in every one of which the candidate was required to pass, the papers on algebra, arithmetic, physics, geometry, and even classics, frequently contained questions which were much beyond what a matriculation standard ought to be. In pure and in applied mathematics they occasionally exceeded in their range the subjects set in the Calendar; as a rule they were of a very difficult nature in themselves, involving the solution of problems or the explanation of abstract notions relating to force and motion, rather than the straightforward demonstration of theorems; and, what was the worst of all, they too frequently

took the shape of those puzzling, conundrum-like questions, which nowadays appear to be the delight of professional examiners, but which are certainly thoroughly objectionable, if not contemptible, in the eyes of earnest students and teachers. The Senate has not turned a deaf ear upon the representations which were made to it respecting this subject, and when it took the matter up it cannot have had much difficulty or hesitation in coming to a decision. It was the knowledge that the Senate was ready to listen to every reasonable complaint, and would remedy any grievance which might exist, that has deterred ourselves, and doubtless others, from drawing public attention to this subject long ago. The instructions which the Senate has just issued to the Registrar, whilst they are temperately worded, sufficiently convey the impression which the inquiry must have made upon its members, and their determination to make the matriculation examination more reasonable in the future. The resolution runs as follows:—"That it be an instruction to the Registrar to inform all examiners on their appointment that the matriculation examination is primarily intended for students of sixteen or seventeen years of age, and to remind them that the papers in each subject form a part only of the formidable ordeal of an examination lasting for five days; therefore that, while the knowledge required of each subject should be sound as far as it goes, the examination in each should never be otherwise than of a simple elementary character within the limits of the syllabus—more searching tests being reserved for later examinations." We beg to congratulate the Senate upon the clear and unmistakable language of these instructions, which will be received with the greatest satisfaction throughout the country, and especially by aspirants to the medical degrees of the University of London.

THE FRENCH MEDICAL ASSOCIATION.

THIS body, constituted for the purpose of succouring distressed members and defending professional interests, has just held its twenty-fourth annual meeting under the presidency of M. Henri Roger. The report states that it is in a flourishing condition, having, during the not quite a quarter of a century of its existence, amassed property to the amount of 1,700,000 fr. It now consists of 8055 members, distributed among ninety-four local societies or branches. During the year that has passed it has been able to furnish aid to forty members, to ninety widows or daughters of members, and to fifty practitioners who were not members of the Association. It has also sixty-five pensioners on its list, and seven sons of members, the expense of whose education it defrays. Dr. Amédée Latour, the founder of the Association, retires from his post of General Secretary, on account of ill-health, with a pension of 1300 fr.

DEMONSTRATIONS ON COMPARATIVE ANATOMY AT THE ROYAL COLLEGE OF SURGEONS.

DR. GARSON'S course of thirteen demonstrations on the Comparative Osteology of the Vertebrata, of which we gave notice last week, will be given during the months of May, June, and July, in the Museum of the Royal College of Surgeons of England, on Tuesday afternoons, at four o'clock, commencing May 2. All students and other visitors to the Museum are invited to attend these demonstrations. The subjects treated of during the course will be the following:—1. The vertebral column. 2. The sternum and ribs. 3. The shoulder-girdle. 4. The pelvic girdle. 5. The long bones of the extremities. 6. The hand. 7. The foot. 8. The homologies of limbs. 9. The skull of man. 10. The varieties of the skull of man. 11, 12, and 13. The skull of other vertebrates.

THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE eleventh meeting of this body will take place at Rochelle, commencing August 24, 1882, and terminating on August 31. All persons desirous of making communications are requested to address them either to Prof. Gariel, General Secretary, 4, Rue Antoine Dubois, Paris; or to M. Caillot, Secretary to the Local Committee, La Rochelle.

ON THE VALUE OF SULPHUROUS ACID AS A DISINFECTANT.

THE *Mittheilungen aus dem Kaiserlichen Gesundheitsamte*, Bd. I., 1881, contains a paper by Dr. Wolffhügel, a distinguished pupil of Pettenkofer's, as to the value of sulphurous acid as a disinfectant. Recent discoveries in microzoic pathology have thrown such doubt on the efficacy of so-called disinfectants that the implicit confidence of the past seems likely to be succeeded by hopeless scepticism. The belief in sulphurous acid, however, is so deeply rooted in the professional as well as the popular mind, that it seems almost a pity to disturb it. Dr. Wolffhügel has undertaken, by a course of experiments, to ascertain the limits of its action, and the conditions most favourable thereto. For its production, he is content with the old method of burning stick sulphur, using a little spirits to set the combustion going, and fixes twenty grammes to each cubic metre of room space as the quantity necessary. In favour of the evaporation of sulphurous acid previously condensed to the liquid state are the absence of all risk of fire, and the greater amount that can be evolved in a given space, but in practice the cost would be a serious objection. Its activity is far greater in the presence of water, so that where bleaching or other destructive action is not feared all articles exposed to it should be damped. Woollen fabrics absorb it far more than cotton or linen, but it does not penetrate to a sufficient depth into bales of goods or bundles of clothes, which should therefore be opened and spread out. In the dry state these are not appreciably injured by it. To aid its action, and to prevent its escape by diffusion, the walls and ceilings of rooms should be previously saturated with water. Dr. Wolffhügel finds that in the utmost dilution (0.75 to 1.0 volume per cent.) it speedily kills all bacteria and micrococci—as the bacillus of splenic fever, the cocci in putrid blood, etc.,—in two minutes if wet, in twenty if dry; but that even in the highest state of concentration, as gas or in solution, it exerts no action whatever on spores. This is a most serious drawback, and he thinks that it would be well if we could abandon the use of all disinfectants that do not destroy spores as well as more developed organisms.

COLLÈGE DE FRANCE.

THE following courses of lectures will be delivered twice a week during the session which commenced April 18:—
1. *General Physics*—M. Michel Loevy (as a substitute for Prof. Bertrand): The Transport and Electrical Division of Energy. 2. *General and Experimental Physics*—Prof. Mascart: The Measures of Electricity. 3. *Mineral Chemistry*—Prof. Schutzenberger: General Phenomena of Chemistry. 4. *Organic Chemistry*—Prof. Berthelot: The Synthesis of Organic Compounds. 5. *Medicine*—Prof. Brown-Séquard: The Influences of Peripheric Irritations on the Encephalon and other parts of the Animal Organism. 6. *The Natural History of Inorganic Bodies*—Prof. Fouqué: Volcanic Rocks in Relation to their Age. 7. *The Natural History of Organic Bodies*—Prof. Marey: His new Researches on Locomotion. 8. *Comparative Embryology*—Prof. Balbiani: The Reproduction and Development of Psorosperms and Bacteria. 9. *General Anatomy*—Prof. Ranvier: The Sympathetic and Cerebro-spinal Nervous Centres.

CLINICAL EXAMINATIONS.

AT the last pass examination for the diploma of membership of the Royal College of Surgeons there were, as usual, some good clinical cases selected from the metropolitan hospitals, on which the candidates' knowledge was tested, as—sarcoma of the neck; epithelioma of the back of the hand; repaired injury of the leg; exostosis of right humerus and left femur, and of right and left tibiae, in the same man; chancre on the penis; dilatation of the arteries of the neck, and bursa in the popliteal space; carcinoma on the forehead; palmar bursa; urinary fistula and infiltration of the penis and prepuce (in a black man)—a puzzling case to several; popliteal aneurism; abscess and renal fistula; molluscum contagiosum; sarcoma on the thigh; strumous glands of the neck; syphilitic tongue; talipes equinovarus; sarcoma in the temporal region; palsy of the facial nerve; a pistol-shot wound through the clavicle, wounding the lung, the bullet being removed from the back; scrofulous disease of the knee-joint; inguinal hernia, with double encysted hydrocele; ruptured biceps.

THE PERMANGANATE OF POTASH AND COBRA-POISONING.

THE March number of our contemporary, the *Indian Medical Gazette*, contains a second series of Mr. Vincent Richards' experiments with permanganate of potash in snake-poisoning; and it must be allowed that they seem to clearly prove that the drug does neutralise the cobra-poison if mixed with it while it is still in the tissues of the bitten part. Some of the experiments most recently published show this very distinctly. For example, the poison was taken from the glands of a cobra, and one-half of the quantity obtained was injected into a dog weighing fifty pounds, and the remaining half into another dog weighing only thirty-two pounds. No remedy was applied in the case of the first dog, and the animal died in six hours and forty-one minutes. In the second case permanganate was injected five minutes after the injection of the poison, and, although the animal was much the smaller and weaker of the two, it exhibited no symptoms of poisoning. Again, two dogs were each injected with a two-centigramme solution of cobra-poison. In one case a supposed "sure cure" sent from Africa was given almost immediately after the injection, and the animal died in five hours and forty-one minutes. In the other case a catgut ligature was applied five minutes after the injection of the poison, and thirteen minutes later a solution of the permanganate was injected, and the animal exhibited no symptoms of snake-poisoning. In another experiment sufficient poison was injected into a dog to kill it in from five to six hours. Five minutes after the injection a ligature was applied, and twenty minutes later—i.e., twenty-five minutes after the injection of the poison—a solution of the permanganate of potash was injected, and the animal did not exhibit a single symptom of snake-poisoning. Mr. Richards is satisfied that his experiments have clearly demonstrated that the permanganate, although it does not possess the power of an antidote in the ordinary sense of the word, is of very considerable value in the treatment of cobra-poisoning. Up to the present time, he remarks, the only really effectual means of treating cobra-poisoning were ligature and amputation. The permanganate of potash seems, so far, to have no power over the cobra-poison when it has been absorbed into the general tissues, but it does possess the power of neutralising the poison while lying in the tissues. No proof has been obtained that it has the slightest remedial influence when once the characteristic physiological effects of the poison are developed, and it is therefore absolutely necessary that the permanganate shall come into actual and complete contact with the cobra-poison in the tissues, or the destruction of

the poison will not be complete. It appears that sloughing of the injected tissues is an almost constant sequence of the injection of the permanganate. When failure resulted in the experiments, it was generally to be explained by inefficient ligature, or incomplete injection of the permanganate; and in some cases the intervals were too long, or the dose of the poison too large. But Mr. Richards intends dealing in detail with the treatment of cobra-poisoning in a future paper, and will then fully point out all the precautions necessary to insure success.

A NEW PARASITIC SKIN-DISEASE.

DR. NIELLY, Professor of Exotic Pathology at the Naval Medical School at Brest, recently exhibited to the Academy of Medicine a lad, aged fourteen, who had just entered the Service. An eruption, papular, vesico-pustular, discrete or confluent, was present on the left upper extremity, in some places on the body, and thickly on the lower extremities. The sero-pus from the eruption showed under the microscope numbers of nematoids not unlike *filariæ* or *anguillulæ*. These worms, colourless, transparent, and measuring on an average $\frac{333}{1000}$ of a millimetre in length, by $\frac{13}{1000}$ in width, were in constant flexuous movement, generally slow, but occasionally active, but had nothing in common with the *Filaria medinensis* or *hominis sanguinis*. Dr. Nielly believes this disease, indubitably parasitic, to be identical with the craw-craw described in 1875 by Surgeon O'Neill, R.N., as prevalent among the black population of the Gold Coast; but whether it be the same or not, he is not aware of its having been hitherto recognised by any observer in Europe. As the boy had never left the place of his birth, it seems highly desirable that further researches should be carried out in that part of Brittany.

THE VIRCHOW TESTIMONIAL.

THE subscriptions to the Virchow Testimonial amount to the present time to 76,612 marks, or £3830.

MEDICAL PARLIAMENTARY AFFAIRS.

The Lunacy Laws.—In the House of Commons, on Tuesday last, Mr. Leighton, being of opinion that all lunatics ought to be committed to the care of the State, moved a resolution to that effect. He commented upon the impolicy and danger, as he thought, of permitting private persons to make profit by the custody of lunatics of the wealthier classes, and also upon the unfairness of requiring the rate-payers to maintain lunatics of the middle and lower classes. The existing laws, he declared, permitted great abuses in the maintenance of lunatics; and, in short, the Lunacy Laws were wrong in principle, in practice, and in effect. In a large number of instances the detention of lunatics was determined by the convenience of other persons; and the present system of inspection was wholly inadequate to remedy the evils complained of. He proposed that the State should take over the licensed houses, and should pay the medical superintendent a fixed and adequate salary, the licensed houses remaining in all other respects, as before, private. The Commissioners were of opinion that abuses do prevail under the existing regulations. The arrangements, too, for the management of pauper asylums were very chaotic, having no less than six conflicting authorities, and a different system prevailed in each of the three kingdoms. Many pauper lunatic asylums were filled with persons belonging to the middle classes. A great step in advance would be to dissociate pauperism and insanity. Mr. Dillwyn remarked that he had carried the second reading of a Bill on this subject, and he hoped the Government would deal with the question, but he did not in all points agree with the mover of the resolution. Mr. Hibbert replied that a very strong case would have to be made out before the Government abolished the existing system and took over the care of all lunatics. There are no less than 6300 private asylums in the country.

He would be sorry to see the State paying anything direct as a subvention to the outdoor poor. The blind, the deaf, and the dumb might similarly claim State aid. Mr. Beresford Hope, having had opportunities of closely watching the working of private asylums, would bring the subject from the world of romance to the level of indisputable fact. How many cases, he would ask, of systematic cruelty and neglect had been heard of by the Commissioners? The penny post was available for lunatics to air their complaints, and yet few such had been received. It was wrong to bring vague charges against a body of highly educated gentlemen, who spent their lives in the pursuit of science and in works of charity. Lord Shaftesbury, who was opposed to private asylums, had admitted that he could not say the hard things of private asylums as he did before 1859. The percentage of cures in private asylums was 50 per cent., as against 44 per cent. in public institutions. Sir Trevor Lawrence said that if there was one thing more conclusively proved than another, it was that the accusations brought against the private lunatic asylums of the country were entirely unfounded. And certainly nothing could be worse for the lunatics themselves than that they should be handed over to the Local Government Board, who had their hands already full enough. The resolution was lost by 81 against 34 in its favour.

FROM ABROAD.

EPISTAXIS.

DR. LEFFERTS, Professor of Laryngology in the College of Physicians and Surgeons of New York, calls attention (*Phil. Med. News*, January 28) to a "Practical Point concerning Epistaxis," which he considers of very considerable importance, and a due consideration of which he believes will much facilitate the management of many cases of this often troublesome affection. After adverting to the various degrees in which epistaxis may prevail, and the frequently unavailing employment of local and general measures, he goes on to observe:—

"A simple and easily made examination of the anterior nares, with a suitable light and speculum, even without the latter in many instances—an examination that needs neither the hand nor eye of the expert—will reveal the cause of the conditions described, as almost invariably lying in a small erosion of the mucous membrane of the cartilaginous septum, just above the point of the former's junction with the skin. The term 'ulcer' cannot be correctly applied to the lesion—certainly not in its earlier stages and as commonly seen,—for although there is necessarily some loss of substance, no marked excavation exists except in extreme cases. Catarrhal conditions may or may not co-exist; they probably will, but it must be borne in mind that neither erosion nor ulceration are features of simple nasal catarrh. On the contrary, I believe that these erosions are always the result primarily of the direct mechanical irritation or injury caused by the forcible and repeated removal of the slight crusts of inspissated mucus, formed, in the first instance, by various accidental circumstances at this point (a slight concavity here is no unusual circumstance), the finger being the common instrument. The epithelial covering of the parts thus once disturbed, the subsequent steps of the process follow. Secretion mixed with blood, in greater or less quantity, readily lodges upon this as upon any irregular surface or point in the nasal passage, dries into a hard crust in the respiratory current, is again removed mechanically, and each time bleeding follows, either directly, as the result of tearing away of the crust, from the slightest cause, as blowing the nose, or even spontaneously, its amount varying with the extent and duration of the lesion, and being dependent upon the unusual richness of the blood-supply (small arterial branches) of the septum over other parts. The process thus instituted and continued naturally follows the usual pathological course of any interference with a wound-surface; and unless timely and judicious treatment cut short its course, the constantly deepening erosion, the constantly increasing crust of blood and mucus—both dependent upon the constant mechanical irritation,—can lead but to one result, viz., perforation of the septum, an accident by no means as infrequent as is supposed."

The success of treatment will depend upon the careful and patient *direct* treatment of the eroded point, and the condition is often an obstinate one to deal with, for reparation is slow and relapse is frequent. Acute hæmorrhage, whether profuse or moderate, can at once be controlled, inspection readily showing its origin, by the easy and direct application of pressure or styptics. First of all, in the cure of the affection, the habit of irritating the spot by the finger must be broken through, and then the prevention of the formation of crusts should be sought for by the unremitting use of vaseline or some unirritant ointment. The judicious use (not abuse) of local astringent solutions, carefully applied, will then play a useful part—copper being the best, and nitrate of silver, as a rule, to be avoided. Care, patience, and perseverance are now all that are required.

ABUSE OF THE DRAINAGE-TUBE.

Dr. Stephen Smith, in a clinical lecture delivered at Bellevue Hospital, New York (*Phil. Med. News*, January 21), after adverting on the great frequency with which the drainage-tube is applied, observes that in many cases it would never have been required had the wound been properly treated at first, while in others it acts as an irritant which prevents healing.

"The drainage-tube," he goes on to say, "though an instrument of great value when properly employed, is undoubtedly capable of doing much mischief when used without proper discrimination. It is of great importance to commence its use with correct ideas as to the precise circumstances and conditions to which it is adapted. In the first place, let me say that it can serve but two useful purposes, viz., (1) as a drain of fluids from a cavity; and (2) as a medium for the injection of fluids into a cavity. When it ceases to be useful in one or other of these functions, it has ceased to be useful at all, and its further employment is hurtful. In incised wounds the tube should never be used when the two surfaces can be brought accurately together and maintained in apposition. This may seem a needless piece of advice, and yet I do not doubt that you have seen it used in just such cases, and perhaps many times. In the removal of tumours large flaps are often formed, and as they are raised up it seems quite impossible to bring the opposing surfaces accurately together; and yet with a little care they can be adjusted, and with careful padding maintained in apposition for the brief period necessary for their union. It is simple carelessness and negligence on the part of the surgeon who allows the surfaces to separate so that a *depôt* is formed for the accumulation of fluids, which necessitates the use of the tube. And I am quite sure that the popularity of the tube is such with many surgeons that they would place it between the surfaces of the wound without ever raising the question as to their ability to secure immediate union by properly adjusting the external dressings. But the difference in the time of healing wounds capable of accurate adjustment, treated with and without the tube, is very great; in the former case the tube acts as an irritant, and the wound may not heal for several weeks, while in the latter union may be perfected in forty-eight hours. To thrust a drainage-tube into such a wound, and maintain it there for the purposes of drainage and the injection of disinfecting fluids, is, to say the least, very improper practice."

In amputation wounds he believes that the tube might often well be dispensed with where it is now employed, as the flaps may be so formed in many cases as to admit of a complete unaided drainage; while even when the tube is useful at first, it is often maintained in position long after all danger of accumulation of fluids has passed away. When used at once, also, it should only penetrate to the bone, where a cavity may exist if the flaps are not well supported. In abscesses, too, unconnected with diseased bone, the tube is frequently, if not generally, used for much too long. It is sometimes allowed to remain for months, while the rule should be to remove it as soon as we are satisfied that the cavity is free from septic matters, apposition by means of uniform external compression being then resorted to.

"In many cases these abscesses may be perfectly obliterated in five or six days by the following method:—Puncture the sac and evacuate the contents, introduce the tube, and, holding the edges of the puncture firmly about it, inject a carbolic solution 3 per cent. strong until the cavity is over-distended; allow the fluid to escape, and inject again until

the escaping fluid is colourless. Now remove the tube, carefully adjust wet carbolised sponges, squeezed as dry as possible, over the entire surface of the abscess, and bandage them firmly in position. The effect is to cleanse the cavity of all septic matters, and then to press the walls of the abscess gently and firmly together. Union of the two walls is often completed at a single dressing, retained four or five days. If the abscess is inflamed, the tube is often useful in securing drainage from recesses that otherwise would retain decomposing fluids. But there comes a limit to the time when the tube is useful for drainage, and should only be employed to throw injections into the deeper parts."

Dr. Smith considers as of very doubtful utility, and as certain to give rise to great abuses, the through-and-through drainage which has of late been practised in open wounds, suppurating cellulitis, suppurating joint cavities, compound fractures, etc. The tube, with fenestræ cut in it, is passed completely through the wound, and through it a solution of carbolic acid is thrown several times a day, so as to keep the internal surfaces of the wound in contact with the liquid. Carbolic acid can do no possible good when frequently applied to a fresh healthy wound, but must prove an irritant that impedes union; and the drainage-tube passed through the deeper parts of such a wound is simply a source of irritation. If there are cavities in the deeper parts of the wound which require to be washed out, this only proves that proper adjustment and compression have not been employed. So, the early passage of a tube through the wound of a compound fracture, and out at some unbroken part, may convert a compound fracture, which by proper means might have been made a simple one, into a most intractable wound; and even if tubes are only passed during the suppurative stage, it is questionable whether they are nearly as efficacious as incisions into the suppurating cellular tissue, followed by injections of carbolic solutions. In suppurating cellulitis tubes generally do more harm than good. They add a new cause of irritation, and as they are frequently continued for a long time, they not only aggravate the acute stage of the affection, but prolong the period of recovery. The only instance in which through-and-through drainage can be useful in cellulitis is when there is a large cavity of pus which cannot be drained except by a counter-opening; and it is doubtful if this method is superior to the old one of a direct counter-opening.

"Many other examples might be added of the improper employment of the drainage-tube; but they will be apparent in giving you a rule for its use. As a rule, then, use the tube only to remove from cavities fluids liable to undergo putrefactive changes if retained, and to cleanse such cavities by the injection of disinfectants. There are abundant uses of the tube for these purposes. Wounds will frequently allow *depôts* of purulent matters to form in spite of all our care, and these must be early drained and cleaned. Abscesses are often so placed that we cannot compress them after evacuation, but must drain and disinfect their cavities until they heal by the slow contraction of their *grauulations*. Cellulitis may result in the formation of large collections of putrid fluids, which can best be removed by the tubes, through which the cavity can only be effectually cleansed. Inflamed joints present natural cavities which may require cleansing and drainage. The impression which I wish to leave on your minds is this: that the drainage-tube has certain definite uses, and when so used is of great practical value, but that it is very liable to abuse by a failure to discriminate as to the cases to which it is adapted, and the time in any given case when its usefulness ceases."

PROFESSOR PASTEUR AND HIS "MICROBES."

Dr. Jousset de Bellesme, criticising (*Progrès Medical*, April 8) a lecture delivered by M. Chamberland at the Sorbonne on Prof. Pasteur's discoveries, expresses himself as follows:—"While recognising that M. Pasteur has had the merit of discovering some facts of the highest interest, we may be permitted to ask ourselves whether the theories he has emitted as to the functions of microbes in disease have not exerted on medicine the most pernicious influence. To maintain, while leaning on induction, that all contagious diseases are due to microbes, is one of those ideas which, by reason of its apparent simplicity, gives an easy satisfaction to those who do not look beyond the words. The result is:

that many physicians acquire a tendency to adopt this manner of seeing things which purely and simply carries us back to the middle ages. For, in fact, this explanation is a very old one, and reappears at certain epochs, and after having reigned for some time, always finishes by being repulsed. Raspail was the last who, at the commencement of this century, popularised this theory in relation to the itch; and now M. Pasteur has gathered up the succession, and again raised the dogma that all contagious diseases are due to the introduction into the economy of what he calls 'microbes.' What are these microbes? They are microscopic beings of whose nature M. Pasteur does not seem to be very certain. At first he took them for animals of the nature of infusoria, but afterwards created this word, 'microbes,' in order to designate them, and which at present is used as synonymous, so to say, of the term virus, which pathologists employ to indicate the agent that determines contagious diseases. We now know with certainty that these microbes are of a vegetable nature.

"M. Pasteur's microbes have this advantage over viruses, that they are to be seen by the microscope; but when we confine ourselves simply and purely to facts, we find that in no one of the virulent diseases of man have there ever been found these microbes to which he attributes the cause of all this group of diseases. Neither in variola, nor in cholera, nor in syphilis do we meet with them. M. Chamberland would doubtless say that this does not prove that they are not there; to which I may reply, Nor does it any more prove that they are there. In truth, M. Pasteur in building up his theories has forgotten to take count of a factor which is yet absolutely essential to the economy. It is not the microbe, supposing there is one, that is the essential part of the virulent disease, but the patient himself. But this is a matter that can only be fruitfully studied by a pathologist. The physician alone possesses the deep knowledge of this medium (*milieu*)—so variable, so mobile, so unstable, and yet which pursues its evolution according to clearly determined laws—necessary for its due examination. Now, neither M. Pasteur nor MM. Chamberland or Roux are physicians. What was particularly interesting in M. Chamberland's lecture was the perfect good faith and great simplicity with which he brought out in relief the facility that M. Pasteur has always shown in devising explanations, and the confidence with which he transforms pure hypotheses into demonstrated truths. Thus, the lecturer, speaking of the movements of vibriones under the eyes of the spectators, declares that in fact they are true eels!—so that we are far enough away from exact scientific language!

"To take, as a base of operation a truth which is presented as demonstrated, and which is in nowise so, is to sin against the most elementary rules of a good method. M. Pasteur may affirm as he likes that microscopic beings are never to be found in waters of springs or in the tissues of animals or plants; but such affirmations will convince no one, because everyone knows that they are far too absolute. It would be much nearer the truth to say that they are to be met with everywhere. It is not to be denied that the epithelium of certain cavities, and especially that of the mouth, contains well-nigh the entire collection of these microbes, which are represented to us as so redoubtable. Will anyone venture to maintain that solutions of continuity never take place in these mucous membranes, that in this way the door may not often be opened to the invasion of microbes, and that they may not thus have the opportunity of passing from the saliva into the blood? How is it, then, that we are not every instant poisoning ourselves with our own microbes? Because it is the conditions in which the organism is placed that hold in their dependence the possibility, or impossibility, of the development of these microbes. If there is a microbe for variola, can anyone doubt that with all those who tend the subjects of the disease there must be an introduction of this microbe into the economy. And yet all do not contract the disease—which proves, as already observed, that the medium dominates the whole question; and that M. Pasteur seems to have overlooked all this side of the subject (withal of so much importance), and that because he is not a pathologist. The truth is, that in these questions we are actually walking in the most absolute manner amidst the unknown, and if there is some progress to be realised, this can only be attained from the side of medicine. Let

physicians, therefore, not figure to themselves that the problem of contagious diseases is resolved, and that nothing more has to be done than to search for the microbe. We have not reached that point. M. Pasteur's explanations are only hasty hypotheses. It is in nowise demonstrated that diphtheria, variola, cholera, and typhoid fever are caused by the invasion of microscopical beings into the human organism. It is just as probable that they may be due to variations as yet unknown in the composition of the liquids of the economy, or in the evolution of certain cellular elements. Moreover, the hypotheses that may be raised on this subject are numerous, and it does not seem to me that M. Pasteur has even conceived their foundations. However this may be, there are some which appear to approach the truth nearer than the one which he has adopted. We will examine these in a future article."

REVIEWS.

Elements of Pharmacy, Materia Medica, and Therapeutics.
By WILLIAM WHITLA, M.D. (Gold Medallist) Queen's Univ. Ire., Physician to the Ulster Hospital for Sick Children; Assistant-Physician to the Belfast Charitable Hospital; Member of the Irish Pharmaceutical Council, etc. With lithographs and woodcuts. London: Henry Renshaw. 1882. Pp. 524.

THIS work, as our readers will have judged from its title, is intended for students. Its matter is arranged upon a novel plan. It is divided into five parts: Pharmacy, Materia Medica, Therapeutics, the Administration of Medicines, and Pharmaceutical Reactions and Tests. In the section on Pharmacy the different operations in the preparation of medicines are described; the student is taught how to make pills, powders, ointments, plasters, etc. Much valuable information is given, which, so far as we can remember, is not to be found in any work commonly in the hands of medical students; details of pharmacy which, although perhaps beneath the dignity of the eminent Fellows of Colleges of Physicians by whom our standard works on materia medica have been written, are yet very important to the practitioner who dispenses his own medicines. For example, we have clear directions as to the best way of using a pestle and mortar, as to the making of emulsions, the coating of pills, etc.—directions thoroughly practical, extending to little things, which, although unimportant so far as the preparation immediately in hand is concerned, yet make a great difference in respect of order in the surgery, neatness, and quickness. As an instance of these small things, in the section on measuring, the learner is told "never pour out with the label downwards, otherwise the drop of moisture left on the lip will trickle down and injure" the label. "Before returning the stopper into a bottle out of which a liquid has been poured, the drop that hangs from the lip should be caught upon the bottom of the stopper by simply touching it." Little matters like these are larger than they seem. After teaching the elementary operations of pharmacy, the different official processes of the Pharmacopœia—evaporation, filtration, etc.—are described, the accounts given of them being concise, clear, and practical. Then comes a general view of the preparations in the British Pharmacopœia, the tinctures, infusions, etc., being regarded together from a pharmaceutical point of view; and those in each group about which there are any special peculiarities are mentioned, and the nature and reason of their divergence from rule stated. Finally, the Pharmacy section is separated from that which follows it by a few blank pages for memoranda.

The Materia Medica section contains less which calls for special notice. The different drugs are placed in alphabetical order; the preparations, with the doses, are given; and the medicinal action of each is briefly mentioned. The information given is, so far as we can see, trustworthy, and it is put tersely and clearly.

The next section deals with Therapeutics alone. The drugs are arranged in alphabetical order, and their uses in the treatment of disease stated. It is well done, and we do not think suffers at all from the fact that the information given is that based upon independent clinical experience rather than upon laboratory experiments or the reports of others. Medicine is an empirical art; the conditions which make up

disease are so complex, that only experience in the actual treatment of the sick can lead to sound conclusions as to the effect of remedies. Deductions from general conclusions, based on experiments on the healthy human subject or on the lower animals, are of course not without utility in guiding our choice as to what is worth trial; but bedside observation alone can tell us what will relieve or arrest disease. Dr. Whitla gives not merely a general account of the action of each drug, but many useful hints as to the conditions in which its effect is most marked, and as to the best way of prescribing it. The practitioner of medicine as well as the student will find this part of the work of much service.

Fourthly, we have the Administration of Medicines, a section much resembling in design our old friend, Pereira's "Selecta e Præscriptis." The chief novelty consists in some lithographed facsimiles of actual prescriptions. Lastly, the Pharmaceutical Reactions and Tests are stated and explained. We have omitted to mention that at the end of the section devoted to *Materia Medica* a useful list of the more frequently employed non-official remedies is inserted.

We think the book is likely to be a very popular one both with students and with practitioners. For its size we are inclined to consider it one of the best handbooks on the subject that we know of. The space given to some of the seemingly less important points—such as dispensing, prescription-writing, etc.—although from a high scientific point of view it may seem disproportionate, will save the practitioner commencing practice from many trivial, but annoying, mistakes. We beg leave to thank Dr. Whitla for his work.

Dramatic Singing, Physiologically Estimated. By WALTER HAYLE WALSH, M.D. London: Kegan Paul, Trench, and Co. 1881. Pp. 133.

THE scheme of this work, the writer tells us, "was fixed on during convalescence from a recent illness, when its arrangement played a pleasant part in beguiling long hours of tedium." Among the reasons for its publication is that "it seemed worth showing how naturally one of the most fascinating of the fine arts falls within the scope of medical study."

The musical public are to be congratulated on the use which Dr. Walsh has made of his hours of enforced idleness, or rather what, but for it, would have been idleness. Dr. Walsh has amused himself by analysing the components of excellence in dramatic singing, considering, from a physiological point of view, the conditions upon which each quality which helps to make up excellence depends, and appraising, according to their importance and rarity, the value of each special merit, and the degree to which the ultimate result suffers from its want if absent.

"Dramatic singing" Dr. Walsh defines as follows: "intra-laryngeal vibrations, strengthened and supplemented *in transitu* outwards, are equal *voice*; voice articulated is equal *speech*; voice modulated is equal *tune*; voice modulated and articulated is equal *song*; and voice modulated, articulated, and modified to express sentiment, emotion, and passion, is equal *dramatic singing*. The essential elements of the operatic singer's art are voice, vocalisation, and the dramatic management of both. Dr. Walsh, having thus defined his subject, considers the essential attributes of each of these elements. The dramatic singing voice he finds requires—(a) compass; (b) volume; (c) sustained power; (d) equality of power through the entire vocal range; (e) quality or timbre; (f) tellingness; (g) certainty; (h) freshness. To each of these qualities Dr. Walsh attaches a numerical value—a *plus* figure to indicate its importance when present, a *minus* one to denote the degree to which the voice suffers by its absence. Thus, timbre he considers the most important of all, and therefore allots to it marks from +20 to -20. On the other hand, perfect equality of power through the entire range is so rare, if indeed it is ever met with, that it is comparatively an unimportant element, and Dr. Walsh only allots to it numbers from +4 to -4. Great compass of voice, while its possession is an advantage to be highly estimated, yet its deficiency is a small defect, the most pleasing voice may be small in compass. The *plus* marks therefore here excel the *minus*, +10 to -5 being the scale suggested by Dr. Walsh. It is the reverse when we regard power: the want of vocal power is a cardinal defect, while mere ability to shout loudly is a small merit: our author therefore here marks his estimate

by numbers from +5 to -10. We need not quote the figures which Dr. Walsh gives for the other elements named as going to make up the perfect voice. The instances we have quoted will give an idea of his method, and illustrate the principles which guide him.

Under the head of Vocalisation, the next essential for the dramatic singing voice, the author finds the following elements range themselves for analysis:—(a) intonation; (b) time, or rhythm; (c) production of voice and articulation; (d) flexibility and fluency; (e) transition from chest voice to falsetto; (f) vocal style and embellishment. To each of these a numerical value is attached, in the same manner as to the attributes of voice. In considering each of them the author, as in the former section, examines the anatomical and physiological conditions upon which it depends. As illustrative of his method in this part of his subject we may take the first given—intonation. Dr. Walshe enumerates ten factors essential to perfect intonation: (1) accurate memory of the notes; (2) healthy activity of the brain faculty to re-command each note with the precisely identical pitch; (3) health of the nerves joining the tone-centre in the brain with the larynx; (4) instantaneous response of the laryngeal muscles to the brain order; (5) a normal condition of the resounding cavities of the mouth, throat, nostrils, etc., which strengthen the laryngeal notes by unison-resonance, and modify them by harmonic additions; (6) the power of intuitively fixing a definite sliding measure of tension, thickness, and length of the vocal cords in *piano* and *forte* utterances, to balance the tendency of those cords to heighten the pitch, when the air-current through them is increased in force, and *vice versa*; (7) absolute precision in various changes of the wind-pipe, designed to insure its vibrating in unison with the vocal cords; (8) precise adjustment of the membrana tympani to varying pitch in tone, and by involution a healthy state of the muscle tightening that membrane; (9) a normal ratio in regard to density and plasticity of the fluid of the labyrinth in the internal ear; and (10) an efficient condition of the constituent of the internal ear designed to be impressed sympathetically by variation in tone, *i.e.*, the organ of Corti.

The last requirement of dramatic singing submits itself less readily to analysis. Dr. Walshe can separate dramatic expression only into three elements—(a) just adaptation of style to the nature of the sentiment signified; (b) adaptation of style to the character portrayed; (c) appropriateness of delivery to the natural type of the music.

The quotations we have given will be enough to show the plan of the work, and the manner of its execution. Vocalists will find in it a great deal of information as to the mechanism of the voice, and musicians will find it help them to do as Dr. Walshe has evidently been in the habit of doing, to form in matters operatic a deliberate critical judgment, instead of being content with a general confused sense of approval or disapproval. And every reader who enjoys the lyric stage, whatever his acquirements may be as a technical musician, will be pleased by finding in this book many interesting reminiscences of operatic stars: such abound on almost every page, and prevent the book from ever getting dull. Lastly, the book may interest every medical man, musical or not, as a proof that professional eminence, based on laborious scientific work, is not incompatible with a keen appreciation and enjoyment of the pleasures which recreate those who use them wisely; and that the faculties and training which give special insight into the problems of health and disease confer also a clearer vision when applied to the consideration of widely different matters. The book, in short, is both instructive and entertaining, and we doubt not our readers will thank us for having called their attention to it.

RESIGNATION OF PROF. GROSS.—On the 27th ult., Prof. Samuel D. Gross tendered to the trustees of the Jefferson Medical College, Philadelphia, his resignation of the Professorship of Surgery, which he had held in that institution for twenty-six years. Dr. Gross is seventy-seven years of age, and, although still in the enjoyment of vigorous health, recognises the wisdom of lightening the labour of advancing years. The Chair of Surgery will probably be divided between Drs. Brinton and Samuel W. Gross.—*Louisville Med. News*, April 8.

REPORTS OF SOCIETIES.

THE OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 5.

Dr. MATTHEWS DUNCAN, President, in the Chair.

EXOMPHALOS.

Dr. ROUTH showed (for Dr. OSWALD) a foetus. There was protrusion of the intestines, and of the brain, through apertures in the parietes, and a membrane joined the abdominal and cranial openings; there was hare-lip, and a backward curvature of the spine.

The PRESIDENT remarked on the rarity of such bending backward of the spine in utero.

OVARIAN TUMOUR.

Dr. JOHN WILLIAMS showed a multilocular ovarian cyst, the pedicle of which had been twisted twice. The whole inner surface and contents of the tumour showed advanced necrobiotic change, but no putrefaction.

FIBROID REMOVED BY LAPAROTOMY.

Mr. MEREDITH showed a uterine fibroid, weighing six pounds, with both ovaries attached, removed by abdominal section. It had been cut away at about the level of the internal os, the uterine neck encircled with Kœberlé's serrenœud, transfixed by two stout pins, and secured in the lower angle of the wound. There was a fibroid change in the right ovary, enlarging it to twice its natural size.

Dr. ROUTH said that, in removing the uterus, keeping the stump outside was the important point.

Mr. KNOWSLEY THORNTON said that the uterine cavity nearly always contained septic matter, and therefore when it was opened the extra-peritoneal treatment was the better. When it was not opened the intra-peritoneal treatment answered well. In both cases it was advisable to suture the peritoneal covering of the stump.

MICROSCOPIC SECTIONS OF DISEASED OVARY.

Dr. GALABIN showed sections of the ovary removed by Dr. Braithwaite in the case to be related, and also of a healthy ovary. The texture of the former was much looser, and contained a larger number of round cells, and those of larger size, than in the latter. Both contained small cysts. Dr. Galabin thought that these were commonly found, and did not in themselves produce symptoms.

DERMOID TUMOUR.

Mr. KNOWSLEY THORNTON showed a dermoid cyst. It contained a solid mass covered by skin with long hair; a projection of bone from which grew several teeth; from another part of its surface a small projection like an abortive limb with long nails. The central part of the mass was solid fat. The pedicle was twisted, the cyst had ruptured, and the peritoneum was full of liquid fat. The tumour was so adherent that its removal was very difficult. The patient recovered without a bad symptom.

TWO CASES OF UNILATERAL VAGINAL OÖPHORECTOMY.

Dr. BRAITHWAITE (Leeds) read a paper on the above subject. *Case 1.*—The patient, aged thirty, was the wife of a workman. She suffered from attacks of dyspnoea, which were brought on by exertion, and which could only be relieved by certain very peculiar positions of the body. There was a mitral murmur; the patient was pale and in wretched general health, and the muscle of the heart probably extremely feeble. Menstruation was normal. There was a prolapsed ovary, pressure on which did not bring on the dyspnoea, but caused much pain. The diagnosis was that the dyspnoea was cardiac, but in some way excited by a prolapsed and very tender ovary. In no other way could the relief by posture be explained. The prolapsed ovary was removed, with the result that the dyspnoea was nearly, but not completely, cured. *Case 2.*—The wife of a miner, aged twenty-two, a healthy-looking woman. She had always been very hysterical. She suffered from constant pain in the left ovarian region, dating from the birth of her first child, three years and a half previously, since which time she had never been free from it, except during the last three

months of her succeeding pregnancies (three in number). The left ovary was prolapsed behind the uterus, and exquisitely tender. It was removed, with the result of complete cure. The author believed that the vaginal method of oöphorectomy was the best and simplest for ovaries which were prolapsed or non-adherent.

Dr. ROBERT BARNES regretted that the attitude assumed by London surgeons towards those who practised obstetrics seriously obstructed the progress of this branch of surgery. All great improvements in surgery were largely due to a spirit of enterprise, it might be said of experimental research. He thought that Battey's operation had now emerged from the doubtful domain of experimental surgery, and that we should soon arrive at definite conclusions as to the scope of its application. In a case in which, six months ago, he had removed the ovaries, the fibroid which formed the immediate cause of suffering had almost shrunk away. There was a proclivity, from anatomical reasons, to prolapsus and disease of the left ovary rather than the right. He inquired if the Fallopian tube had been removed? This question was of physiological as well as of surgical interest.

Dr. HICKINBOTHAM thought that in Dr. Braithwaite's first case there was a large amount of hysteria. He attributed some of the relief obtained to the rest and other therapeutic means incident to hospital treatment. He asked what amount of small cysts indicated disease, and what symptoms did they produce? They were seen in ovaries removed for widely different conditions.

Dr. HEYWOOD SMITH said that the interest of the cases would be enhanced if the condition of the patients was reported in six or twelve months; for Battey found that when one ovary only was removed the pain was apt to recur. He thought the abdominal operation preferable in single women; but the incision should be three or four inches in length. The ovaries he had removed he had usually found diseased. He had no doubt that the operation in proper cases was destined to be of the greatest service.

Mr. KNOWSLEY THORNTON thought it still an open question whether oöphorectomy was justifiable for ovarian pain, but there was a great field for it for hæmorrhage from fibroids. Accumulated statistics showed that abdominal oöphorectomy was a very safe operation, but that vaginal oöphorectomy was not. He did not think London was behind-hand in abdominal surgery.

Dr. GERVIS did not think our decision as to the advisability of this operation should be influenced by the possibility of a subsequent recurrence of hysteria. In the cases in which he had performed it for local suffering the result had proved its utility.

The PRESIDENT was not opposed to oöphorectomy; but he could not adopt the theory implied in the first case read. To remove one ovary as a treatment of cardiac dyspnoea he regarded as a wild proceeding; nor could he imagine that it would ever come within the range of rational medicine.

Dr. BRAITHWAITE had removed part of the Fallopian tube in the second case—not in the first. He had secured the pedicles with strong catgut, and united the vaginal wound with one suture only at its lower third. He did not think there was any element of hysteria in these cases. The relief to the dyspnoea in Case 1 by the peculiar positions described showed that it was not altogether cardiac. Since the paper had been sent in, he had heard that the patient was now suffering from cardiac dropsy. Had the operation been done earlier, the result might have been better.

CASE OF EXTRA-UTERINE FETATION TREATED BY ANTI-SEPTIC ABDOMINAL SECTION, WITH REMOVAL OF FŒTUS AND HYPERTROPHIED PLACENTA—RECOVERY.

Mr. KNOWSLEY THORNTON read a paper on this subject. The early history of the case was narrated at the March meeting of the Society. The author would divide cases of extra-uterine foetation into three classes:—1. Those in which accurate diagnosis is possible. 2. Those in which probability, but not certainty, in diagnosis can be reached. 3. Those in which the nature of the case is not suspected until internal hæmorrhage or other untoward accident takes place. In Cases 1 and 3 he thought it bad practice not to operate; in Case 2 an exploratory operation should be performed if the symptoms were urgent. But such operations should only be performed (1) under strict Listerian precautions, and (2) by a surgeon of special experience in abdominal section; for they were extremely difficult

Dr. ROUTH said that, wherever there was a growing abdominal tumour and a complete decidua was voided per vaginam, the diagnosis of extra-uterine foetation might be made. The successful removal of the placenta in this case was due to its hypertrophied condition. Possibly the placental souffle might have been heard.

Dr. ROGERS said that the souffle heard over fibroids was not so marked as that of the placenta. He thought the presence of milk in the breasts would aid diagnosis.

The PRESIDENT drew attention to the persistent life of the placenta after foetal death, and its great hypertrophy. He did not believe the souffle was placental; he called it uterine. The discharge of an entire decidua was a valuable diagnostic aid. He remembered a case in which such a decidua was passed: rupture of the sac and internal hæmorrhage took place. After a few days he evacuated the hæmatocele per vaginam, and found chorionic villi in the fluid. The patient did well. Nowadays he would have had laparotomy done to get the bleeding stopped.

Mr. THORNTON said the souffle was not heard: had it been it would have, to him, strengthened the diagnosis of fibroid. The case narrated by the President was a very rare one. He thought that now abdominal section would be attended with less risk than the course followed.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 18.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

"CANCER" ORIGINATING IN THE MEMBRANES OF THE BRAIN.

Mr. EVE, who showed this specimen, said that it was taken from a man, aged thirty years, who suffered from symptoms of brain-disease for about three months before his death. The specimen showed a medullary tumour, occupying the superior and anterior portion of the cerebellum, and projecting forwards into the transverse fissure; the aqueduct of Sylvius was obliterated. On microscopical examination, the tumour was found to be composed, to a large extent, of rounded papillæ of connective tissue, covered by a single layer of round germinating endothelial cells. These cells formed in places a continuous lining to the alveoli, or were grouped within irregular spaces in the connective tissue. In order to illustrate further this form of morbid growth, he had brought from the museum of St. Bartholomew's Hospital a portion of the brain of an elderly woman, containing many small round tumours in different parts of its cortex. These tumours were also composed of large endothelial cells, enclosed within well-defined alveoli, formed by a tissue resembling neuroglia. He believed that in both cases the tumours originated in the endothelium lining the inner surface of the pia mater, or from its prolongations around the vessels passing into the brain. These specimens resembled the tumours described by Billroth as villous, or plexiform sarcomata of serous membranes, and by Wagner as endothelial cancers. In the character and arrangement of the cells composing them they resembled the cancers; but, since the membranes of the brain were developed from mesoblast, the tumours were, theoretically speaking, sarcomata. Hence the discrepancy in nomenclature. There were, however, so many flaws in the theory that all cancers originate in tissues developed from epiblast or hypoblast, that he preferred, with Wagner, to name these tumours by their anatomical characters, and to call them cancers.

CALCAREOUS TUMOUR (?PSAMMOMA) OF BRAIN.

Mr. EVE, in exhibiting this specimen, said that the tumour was found in the brain of a young man, who died of apoplexy. It was of about the size of a walnut, spiculated on the surface, and lay partly in the posterior extremity of the third ventricle, and partly in a cavity in the left optic thalamus. It was quite free, except below, where it was bound down by fibrous tissue within the brain-substance, that could be traced to the pia mater. This tumour he considered to be a psammoma, originating in the pia mater at the base of the brain, or one of its prolongations around a bloodvessel. According to Billroth and others the characteristic elements of these tumours were calcified globes, composed of endo-

thelium, and probably derived from the prolongations of the endothelium of the pia mater around the bloodvessels. The globes resembled concretions normally found in the pineal gland, and known as brain-sand. The apoplexy from which the patient died was probably due to some vegetations in the mitral valve, giving rise to embolism, and was in no way connected with the tumour.

The PRESIDENT inquired whether any other disease were present in the first case. It used formerly to be said that primary cancer could not exist in the brain.

Mr. BUTLIN was inclined to differ from Mr. EVE in regarding such cases as either cancers or sarcomata. He thought they might be placed in a separate class as endotheliomata.

Mr. EVE replied. He said there was no other disease in the first case than that related.

CAMEL'S LUNG WITH FILARIE SANGUINIS.

Mr. EVE also exhibited this specimen, which showed adult filariæ sanguinis in the lung of a camel. The animal had suffered from a wasting disease for a year, and every drop of blood was found to contain ten or twelve embryo filariæ. The camel was killed by decapitation, and, on examination, adult filariæ were found in tangled masses within the aorta and the pulmonary artery and branches. Dr. Lewis, to whom the specimens had been sent, said that, though the embryo was like that of the filaria sanguinis hominis, the adult was much larger, and specifically different.

MALIGNANT LYMPHOMA.

Dr. HOBSON said that he made use of the term "malignant" to express the clinical characteristics of the growth. The case during life was regarded as one of cancer; the patient was a child, who was admitted in an emaciated condition, jaundiced, with enlargement of the liver and spleen, and tumours in the groin, pelvis, and about the hip. At the post-mortem examination, the liver and kidneys were found to contain many rounded nodules. On microscopic examination, the growth was seen to extend along the arteries, so that sections of the liver showed a new growth surrounding the portal vessels, and of the kidney about the artery. The case seemed to be an instance of a sudden springing into prominence of a tissue normally present everywhere. The relation of the numerous small centres of growth, in this case, to tuberculosis was very remarkable, and seemed to point to a nearer connexion between these lymphadenomata and the former disease than was usually recognised.

Dr. PAYNE inquired whether the small miliary growths described differed essentially from tubercle; for, after chronic lymphomatous tumour, tubercle had frequently been encountered widely distributed throughout the organs.

Mr. BUTLIN had also encountered great difficulty in determining, from microscopical examination, whether a change in a gland were of the nature of hypertrophy, or of inflammation, or of a distinct new growth. The characters of round-celled sarcoma did not in any case differ very widely from those of lymphatic glands; and there was no difficulty in understanding how a rapidly growing sarcoma, when occurring in a lymphatic gland, should take on an appearance still more resembling that of the tissue in which it occurred.

The PRESIDENT observed that, in the discussion on this subject which took place before this Society some years ago, the opinion was very generally expressed, that it was impossible to distinguish with certainty, by the microscopical characters, between tubercle and this form of new growth.

Dr. HOBSON replied. He said he had seen nothing which distinctly suggested tubercle. In its clinical characters the growth was essentially malignant.

CALCULUS FORMED ON A SHELL.

Mr. ROGER WILLIAMS said that the patient from whom this specimen was obtained was a boy who had had difficult micturition for eighteen months before admission to the Wigan Infirmary. He was admitted after having suffered from retention for two days; he was then in a state of collapse; urine was extensively extravasated, and a foreign body was detected in the bladder or urethra; perineal section was performed, but the boy died of suppression of urine. At the post-mortem examination, the left kidney was found to be converted into a sac containing pus. A shell was expelled from the bladder before death, and had formed the nucleus of a small calculus.

INTRA-THORACIC TUMOUR.

Dr. BEDFORD FENWICK exhibited a specimen of intra-thoracic tumour. The patient was a man aged twenty-two, under the care of Dr. Samuel Fenwick in the London Hospital. He had always enjoyed good health till April, 1881, when he began to suffer from cough. This persisted, and, with increasing dyspnoea and gradual emaciation, were the only marked symptoms. There were no evidences of disease outside the chest. Over the left chest the percussion-note was normal and the respiratory sounds were puerile. Over the right chest the percussion-note was absolutely dull as high as the second costal cartilage, but above this line hyper-resonant. Over the dull area the breath and voice sounds were almost inaudible, and the tactile vocal fremitus hardly perceptible. To complete the diagnosis, patient was aspirated, but only an ounce and a half of blood-stained fluid came away. Dr. Fenwick then diagnosed malignant disease of the right lung. Within the next month the only changes in the physical signs were that the line of dullness gradually moved upwards, till the summit of the apex was reached, and that the area of dullness gradually extended more and more to the left. The veins on the chest became distended. Enlarged glands appeared above the right clavicle, and the day before death œdema of the hands and arms showed itself. On post-mortem the whole of the right lung was found infiltrated with a firm, but in parts degenerating, new growth. The mediastinal glands were hard and greatly enlarged, and yielded on section a milky juice. Microscopically, the new growth was found to be made up of epithelioid cells, embedded in a more or less developed fibrous alveolar stroma. The left lung was healthy. Mr. Bedford Fenwick remarked that whatever the growth might be, disease like this was very rarely met with. The main points of interest in the case were:—1. That only the right lung and the mediastinal glands were affected, no other organ and no other glands in the body being implicated. 2. That the patient's illness lasted only nine months. He had collected a large number of cases of primary cancer of the lung, and found the average duration of the symptoms was thirteen months. 3. That the symptoms were so slight, and the physical signs so deceptive—being those, in fact, of effusion into the pleura rather than those of lung consolidation: a fact easily explainable, however, by the general infiltration found post-mortem. He considered that the disease began at the root of the right lung, and implicated the mediastinal glands secondarily, because of the march of the physical signs, and because the left lung was untouched, as it would not have been had the disease spread from the structures between it and the right lung. He had in collating similar cases found several interesting facts. He would, however, only mention two—that when cancer of the lung was primary, in 87 per cent. of the cases only one lung was implicated, but that when the disease was secondary to deposits in other parts in 93 per cent. of such cases both lungs were attacked. These facts he considered all supported the view that this case was probably one of primary cancer of the right lung; and of a scirrhus-encephaloid character.

Mr. EVE asked whether there was any clear connexion between the bronchi and the new growth. He had examined one case, in which the new growth appeared to have arisen from the mucous glands of the bronchi.

Mr. R. W. PARKER said he had recorded a case of primary cylindrical epithelioma in a recent volume of the *Medico-Chirurgical Society's Transactions*. The clinical features of the case closely resembled those related by Dr. Fenwick. He thought there ought to be no difficulty in accounting for primary cancer in the lung, considering the development of the organ. As regards the connexion of the tumour with the bronchi, he would remind the Society that in the foetal condition the alveoli were lined by an epithelium resembling that of the adult bronchus. The cells simply became altered in shape in consequence of the expansion of the alveoli in breathing; they might, nevertheless, well serve as a nidus for the development of true cancer.

The PRESIDENT said that at the time he was investigating the subject there were no instances of primary cancer of the alveoli on record.

Mr. BUTLIN was not quite prepared to accept this case as one of primary cancer, and chiefly because there was no microscopic examination of the tumour. He proposed that it be referred to the Morbid Growths Committee for report.

In a majority of cases of cancer of lung, secondary to cancer of the tongue, it was the right lung which became affected, owing probably to the position of the right bronchus.

Dr. S. WEST believed the tumour began in the mediastinal glands, and thence spread to the lungs, and that it was therefore a sarcoma, and not a cancer. In some cases there was fluid as well as tumour; but "dry-tappings" were not always to be considered conclusive against the presence of fluid; for the chest-wall might be unable to collapse and expel the fluid.

Mr. BOYD had seen a similar case. Suspecting fluid, he had tapped, but without result. At the post-mortem examination a primary tumour of the lung was found, which had perforated the diaphragm, and gone into the liver. The mediastinal glands were not affected.

Dr. FENWICK replied.

ACNE KELOID.

Mr. MORRANT BAKER said that, so far as he was aware, no example of this disease had been recorded in this country. The patient, who was in attendance, was a middle-aged man, who presented on the nape of the neck a flat patch, with an indented overhanging edge, and a smooth, dark red surface, which projected about one-eighth of an inch above the surrounding skin. A few hairs in bundles projected through the surface of the tumour from a lower level. The skin was not especially sensitive; surrounding the patch were a number of firm tubercles, each perforated by a hair, which issued from its summit. The summit had a yellow pustule-like appearance. The larger patch was evidently formed by an aggregation of many of these tubercles. These smaller tubercles closely resembled at first sight the pustules of acne vulgaris, but were entirely different in structure; for each seemed to be composed of soft, unbroken red scar-tissue, its summit perforated by a hair, which was rendered especially evident by the yellow quasi-pustular appearance of the epidermis which surrounded the orifice of the follicle. The patient suffered very little inconvenience. He was a butcher, aged forty-seven, who was in excellent health; he attributed the origin of the growth, which began about forty years earlier, to a poisoned wound, but this was apparently a mere guess. Mr. Baker had only met with one other instance of the disease: the patient was an old gentleman, who attributed the disease to the irritation of the edge of the collar; he declined any cutting operation, but consented to cauterisation with nitric acid, and the growth did not recur. Professor Kaposi, in writing on *Framboesia*, referred to a disease in which bright red, papillary, weeping, and partly ulcerating excrescences (which bled easily) existed on the scalp, and proposed to call it *Dermatitis papillomatosa Capillitii*; but Mr. Baker would not have thought of identifying his case with this disease, but that Professor Kaposi and Dr. Hans Hebra, who saw the case during the Congress, recognised it as identical with the disease described by the former. M. Verité informed him that it was identical with the disease called acne keloid by M. Bazin; and Mr. Baker preferred to make use of this term, because it expressed fairly well the naked-eye features of the growth.

Mr. EVE said that in the museum of St. Bartholomew's Hospital there was a large fibroid mass which had been removed from the neck of a negro. It presented the peculiar arrangement of the hair referred to by Mr. Baker, and was probably an instance of this disease.

TWO CASES OF HEBRA'S PRURIGO.

Mr. MORRANT BAKER showed two lads, who both presented this disease in a well-marked manner; the one was aged seventeen, the other twelve. Both had suffered from infancy; in both the papules were confined to the exterior aspects of the limbs; and in both there was at times a little eczema (this was a rather more prominent feature in the younger patient, who also presented the inguinal buboes to a marked degree). It had at one time been denied that true prurigo of Hebra ever occurred in this country, but Mr. Baker believed that it was by no means uncommon, and brought these cases forward now, as they had been seen by Professor Kaposi and others at the time of the Congress, and had been identified by them.

PAPILLARY CYSTS OF THE OVARY.

Mr. ALBAN DORAN exhibited specimens demonstrating the different seats of origin of the two chief varieties of cystic

disease of the ovary. That organ may be divided histologically into two parts—the parenchyma, or follicles with tissue between them, forming the free part of the ovary; and the hilum, which lies against the broad ligament, and contains relics of tubes of the Wolffian body. From the tissue of the parenchyma arise the common multilocular cysts containing glairy fluid, and often solid glandular contents. These cysts rapidly alter the shape of the ovary—as shown in a small specimen exhibited on this occasion,—but do not force themselves between the layers of the broad ligament; hence they are well pedunculated. From the stroma of the hilum arise those multilocular cysts which bear papillary masses and clear fluid in their interiors. As they do not originate in the free part of the ovary, that portion remains for long distinct from the cyst. On the other hand, such cysts readily force themselves between the layers of the broad ligament, so as to become non-pedunculated. A specimen of a small papillary cyst was shown; though three inches in diameter, the greater part of the ovary lay distinct from it, whilst the smaller cysts in the first specimen had completely invaded and altered the shape of the entire organ. In a third specimen the cyst, filled with papillary masses, had completely separated the layers of the broad ligament. Certain cystic tumours arising primarily in that ligament, and growing quite apart from the ovary, contain similar papillary growths. They have a similar origin—namely, from relics of the Wolffian body. These relics, similar to the tubular and cellular bodies existing in the stroma, lie between the permanent parovarium and the uterus. Lastly, similar relics are found sparingly scattered over the tissue of the parenchyma. This accounts for the occasional appearance of papillary masses in some of the secondary cysts of an ordinary multilocular tumour, where the majority of the secondary cysts bear glandular contents. Mr. Doran attributed many of the difficulties attending the study of the opinions of living pathologists on ovarian pathology to the hosts of confusing synonyms applied to structures and diseases of structures in and adjacent to the ovary. The terms used in Dr. Klein and Mr. Noble Smith's atlas should be used; the old term "cortical part" for parenchyma is misleading, as the essential portion of an organ (even in the kidney or ovary) should hardly be named as a mere "bark" or covering. On the other hand, Latin terms employed by German writers, such as "cystoma ovarii proprium multiloculare proliferum glandulare," though very precise, are definitions, and not names, and are hence useless for nomenclature.

CARD SPECIMENS.

Mr. EVE: Perforating Ulcer of the Foot (three specimens).
Mr. BOYD: Columnar Epithelioma of the lower end of Rectum, with secondary growths in the liver.

THE DECLINE OF POPULATION IN FRANCE.—Dr. Chas. Richet has contributed an important paper to the *Revue des Deux Mondes* (April 15), in which he exhibits at considerable length the figures showing the declension that the population of France is undergoing as compared with other countries, and the fact that this is entirely due to the small number of children resulting from each marriage. Not only is this very much less than occurs in any other part of Europe, but is also much less than used to prevail in France in the pre-revolutionary time, when five, eight, or more children resulted from marriages, which now only produce two or three. Dr. Richet presents the following tabular view of what has taken place, and what in another half-century (supposing the same proportions still to be maintained) will have taken place:—

Populations (in Millions).

	1789.	1882.	1932.
France.	26	37	44
Germany (Austria and Prussia)	28	84	134
Russia	25	90	158
Great Britain	12	36	63
United States	3	52	190

CHLORAL IN TOOTHACHE.—Two or three small fragments of chloral hydrate, about five centigrammes in weight, should be collected by means of a little plug of cotton-wool, and introduced into the cavity of the carious tooth. Under the influence of the chloral the pain subsides in a few minutes.—*Union Méd.*, April 22.

MEDICAL NEWS.

UNIVERSITY OF ST. ANDREWS.—The following registered medical practitioners, having passed the required examinations, had the degree of Doctor of Medicine conferred upon them on April 22:—

Robert Leamon Bowles, M.D. Brussels, M.R.C.S. Eng., L.S.A. Lond., M.R.C.P. Lond., Folkestone; Robert Mundy Gover, M.R.C.S. Eng., L.S.A. Lond., M.R.C.P. Lond., London; Edwin Jacques, M.R.C.S. Eng., London; William Jenner, M.R.C.S. Eng., L.S.A. Lond., Baldock, Herts; Thomas Soars Johnson, M.R.C.S. Eng., L.R.C.P. Edin., Canterbury; William Hooper Masters, M.R.C.S. Eng., L.S.A. Lond., Thrapstone, Northampton; Griffith Williams Roberts, L.R.C.P. Edin., L.F.P.S.G., L.S.A. Lond., Denbigh; Henry Grant Sutton, M.R.C.S. Eng., L.S.A. Lond., Sittingbourne, Kent; John Woodman, F.R.C.S. Eng., L.S.A. Lond., Southernhay, Exeter; John Kendrick Wynne, M.R.C.S. Eng., L.S.A. Lond., Eccleshall, Staffordshire; Robert Maxwell Moffat, M.B. and C.M. St. And., Manchester.

At the same time the following gentlemen had the degrees of Bachelor of Medicine and Master in Surgery conferred upon them after examination:—

Alexander Bowie, L.R.C.P. Edin., L.R.C.S. Fdin., Edinburgh; Robert Knox Wighton Redpath, L.R.C.P. Edin., L.R.C.S. Edin., Edinburgh.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary Examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 20th inst., viz.:—

Dunn, Louis Albert, L.S.A., Brighton, of Guy's Hospital.
Sutton, John Bland, L.R.C.P. Lond. and L.S.A., Canonbury-square, N., of the Middlesex Hospital.

Out of the sixty candidates examined, seven were approved in Surgery, and when qualified in Medicine will be admitted Members of the College; and twenty-one candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months.

The following gentlemen passed their primary examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 24th inst., and, when eligible, will be admitted to the Pass Examination, viz.:—

Brushfield, T., B.A. Cantab., student of the Cambridge School.
Capron, Henri J., of the Bristol School.
Carrington, George H., of the Manchester School.
Corkhill, J. G. Garibaldi, of the Liverpool School.
Deeble, S. Lawson, of University College Hospital.
Fisher, Thomas H., of the Manchester School.
Genge, Richard E., of the Westminster Hospital.
Jefferies, Horace, of the Birmingham School.
Laslett, Thomas G., of the Liverpool School.
Mickle, Herbert, of the Toronto School.
Milligan, David, of the Edinburgh School.
Morton, Frederic, of the Bristol School.
Nicholls, Hubert, B.A. Cantab., of the Cambridge School.
Paterson, Andrew M., of the Manchester School.
Patterson, George de J., of the Dublin School.
Scattergood, Oliver, of the Leeds School.
Windley, William, B.A. Cantab., of the Cambridge School.

Seven candidates were rejected. The following gentlemen passed on the 25th inst., viz.:—

Barendt, Frank H., student of the Liverpool School.
Cowen, George, of the Dublin School.
Cundall, Thomas W., of the Leeds School.
Grier, C. W. Monro, of the Edinburgh School.
Little, Arthur N., of the Bristol School.
Mackay, George, of the Edinburgh School.
Melson, George H., of the Birmingham School.
Moon, Joseph A., of the Glasgow School.
Nicolet, Gustave P., of the Edinburgh School.
Ottley, Michael A., of the Dublin School.
Paterson, Donald, of the Edinburgh School.
Rothera, Frank, of the Edinburgh School.
Scott, Patrick C., B.A. Cantab., of the Cambridge School.
Stericker, Frederick W., of the Cambridge School.
Walker, Charles P., of Guy's Hospital.
Wethered, Frank J., of the Bristol School.
Williams, Patrick W., of the Bristol School.

Seven candidates were rejected. The following gentlemen passed on the 26th inst.:—

Agar, Samuel H., student of Guy's Hospital.
Carden, George S., of the Edinburgh School.
Davy, Thomas G., of St. Bartholomew's Hospital.
Green, Robert W., of the Leeds School.
Jones, Samuel C., of University College Hospital.
Kennedy, Thomas, of the Edinburgh School.
Mackinnon, Frank J., of the Edinburgh School.
Spicer, Wm. T. H., B.A. Cantab., of St. Bartholomew's Hospital.
Wakefield, Christopher F., of Guy's Hospital.
Ward, Allan O., of the Edinburgh School.
Williams, Campbell, of University College Hospital.
Wright, Sydney C. E., of the Westminster Hospital.

Twelve candidates were rejected, including two who had an additional three months.

The Anatomical and Physiological Examination.—At the written portion of the primary examination for the membership of the Royal College of Surgeons, on the 21st inst., when 220 candidates presented themselves, the following questions on Anatomy were set them, and they were required to answer four, and not more than that number, out of the six questions, from 1 till 3 p.m., viz.:—1. Describe the muscles which connect the hyoid bone with the bones of the head. Give the nerve-supply to each muscle. 2. Give the dissection required to expose the triangle at the bend of the elbow, and describe the contents of that space in their relative positions. 3. Describe the course and relations of the vas deferens from its commencement to its termination. 4. Describe the attachments and the relations of the left psoas magnus muscle. 5. Describe the origin, course, and distribution of the superior intercostal artery and its branches. 6. Describe the arrangements by which the tendons of the flexors and extensors of the toes are attached to the phalanges. The following were the questions on Physiology, to be answered from 4 to 6 p.m., viz.:—1. In what manner are bread, meat, butter, and potatoes digested? With such a diet what would be the composition of the fæces? 2. Describe the termination of nerve-fibres in striated muscle. What changes does muscle undergo when permanently separated from nervous control? 3. Describe the minute structure of the trachea, and state the functions fulfilled by its several tissues. 4. In what tissues of the body is glycogen found? How may it be separated, and what are its characters? 5. What is understood by the term blood-pressure? What are the circumstances by which it is modified? 6. What is meant by the term vaso-motor nerve? Give examples of such nerves. Explain how active dilatation may be produced by nerve-stimulation.—At the corresponding period last year there were 185 candidates, showing an increase this session of thirty-five candidates.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 20:—

Davies, John Charles, Rhoslanerchrugog, Ruabon.
Goodsall, John Kenaz, Burton Joyce, Nottingham.
Lovegrove, Thomas Ernest, Flaxman-road, Brixton, S.E.
Williams, John Henry, Llanidloes, Montgomeryshire.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Cree, Howard Eustace, Middlesex Hospital.
Leslie, George Herbert, Liverpool Royal Infirmary.

APPOINTMENTS.

CULLINGWORTH, CHARLES JAMES, M.D., L.R.C.P.L.—Physician to St. Mary's Hospital for Women and Children, Manchester.
HOVELL, T. MARK, F.R.C.S. Edin.—Assistant Aural Surgeon to the London Hospital.
WILLIAMS-LOVERIDGE, ARTHUR, M.R.C.S., L.S.A.—Junior House-Surgeon to the Huddersfield Infirmary, *vice* Z. Prentice, promoted.
WOAKES, EDWARD, M.D. Lond.—Senior Aural Surgeon to the London Hospital.

BIRTHS.

BARKER.—On April 22, at 87, Harley-street, Cavendish-square, W., the wife of Arthur E. Barker, F.R.C.S., of a daughter.
BUCK.—On April 18, at George-street, Ryde, the wife of T. A. Buck, M.B., of a daughter.
CAMPBELL.—On April 19, at 11, Gordon-place, Campden Hill, W., the wife of Brigade-Surgeon A. D. Campbell, late H.M.'s Bengal Medical Service, of a daughter.
GLYNN.—On April 15, at 62, Rodney-street, Liverpool, the wife of T. R. Glynn, M.D., of a son.
HUTCHINSON.—On April 17, at Scarborough, the wife of Charles F. Hutchinson, M.D., of a daughter.
KEATES.—On April 17, at 2, Tregear-villas, East Dulwich, the wife of William Cooper Keates, L.R.C.P., M.R.C.S., of a son.
LAWRENCE.—On April 14, at Chesfield, Hadlow, the wife of H. M. Lawrence, L.R.C.P., M.R.C.S., of a son.
MILLER.—On April 17, at Horwood, Basingstoke, the wife of F. D. Miller, L.R.C.P., of a daughter.
MUIR.—On April 23, at 44, Cornwall-road, Westbourne Park, the wife of J. C. P. Muir, L.R.C.P., of a daughter.
POWELL.—On April 21, at Melton Mowbray, the wife of L. L. Powell, L.R.C.P., M.R.C.S., of a son.
PRIESTLEY.—On April 20, the wife of C. E. Priestley, M.R.C.S., 1, Halbrake-terrace, St. John's Hill, Wandsworth, Surrey, of a son.

MARRIAGES.

CLUBBE—HARRISON.—On April 12, at Kidbrook, Charles Percy Barlee Clubbe, L.R.C.P., M.R.C.S., of Lower Tooting, to Ethel Marion Jeffreys, daughter of Charles Harrison, Esq., of Kidbrook.
GODFREY—WALKER.—On April 18, at Clapham Common, Benjamin George Godfrey, M.R.C.S., L.R.C.P., of Devonshire Cottage, Balham Hill, to Mary Georgina Annie, daughter of the late James K. C. Walker, Esq.
HENDERSON—HENDERSON.—On April 20, at Cornhill, George Henderson, M.B., C.M., of Coldstream, to Isabella, daughter of the late John Henderson, Esq., of Cornhill and Berwick-on-Tweed.
HIRSCHL—HICKS.—On April 22, at Leghorn, Lajos Kossuth Hirschl, M.D., late Resident Physician at the General Hospital, Vienna, to Lydia Anne, daughter of the late Thomas Hicks, J.P., of Derreena Manor, co. Cork.
HUSSEY—GRIFFITHS.—On April 19, at Cloughton, Birkenhead, Edward Hussey, M.D., of Brighton, to Jane Annie, daughter of Thomas Griffiths, Esq., of Silverdale, Oxtou.
MCQUAID—DAVIDSON.—On April 20, at Southampton, Peter John McQuaid, Surgeon Army Medical Department, to Lucy, daughter of the late W. J. Davidson, Esq., of The Park, Nottingham.
SANDWITH—GLASSFORD.—On April 25, at Kensington, Fleming Mant Sandwith, M.R.C.S., to Annie C., daughter of the late William Glassford, Esq., of Gibraltar.
SMITH—BOND.—On March 23, at Calcutta, David Boyes Smith, M.D., to Maude Cotterell, daughter of the late Alfred Bond, Esq.
THOMSON—HAYWOOD.—On April 20, at South Kensington, George James Crawford Thomson, M.B., M.R.C.S., of Frome, Somersetshire, to Beatrice Eveline, daughter of the late Daniel Haywood, Esq.
TRIMMER—ROGERS-HARRISON.—On April 24, at Lambeth, George Trimmer, Esq., of Reading and London, to Emma Ann, daughter of Charles Henry Rogers-Harrison, F.R.C.S., of Vine House, 55, Stockwell-road, Clapham.

DEATHS.

GLYNN, OCTAVIA, the wife of T. R. Glynn, M.D., at 62, Rodney-street, Liverpool, on April 21.
POLLARD, Surgeon-Major W. H. E., late of Her Majesty's 108th Regt., at Netley Lodge, Putney, on April 23, in his 52nd year.
SHEPHERD, GEORGE, M.D., late of Clifton, at St. George's Lodge, Brighton, on April 22, aged 63.

VACANCIES.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon. Candidates must send certificates of registration, and also satisfactory testimonials of ability and good moral conduct. Applications to be addressed to the Secretary of the Hospital, on or before May 4. The election takes place on May 10.
CLINICAL HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, PARK-PLACE, MANCHESTER.—House-Surgeon. Candidates must be duly qualified practitioners. Applications, with testimonials, stating age, to be sent to Mr. E. W. Marshall, Secretary, 38, Barton-arcade, Manchester, not later than April 29.
DROVERS' SICK SOCIETY, METROPOLITAN CATTLE MARKET, ISLINGTON, N.—Medical Officer. (*For particulars see Advertisement.*)
ROYAL HANTS COUNTY HOSPITAL, WINCHESTER.—House-Surgeon. Candidates must possess the diploma from the Royal College of Surgeons of England, or a surgical diploma of a Royal College or of a University in Scotland or Ireland, and also either a licence from the Royal College of Physicians of London, or from the Apothecaries' Society. They must also produce unexceptionable testimonials as to moral character. Applications, with testimonials, to be addressed to the Secretary, at the Hospital, on or before May 6.
ST. GEORGE'S HOSPITAL.—Physician and Assistant-Physician. (*For particulars see Advertisement.*)
TORBAY HOSPITAL AND PROVIDENT DISPENSARY, TORQUAY.—Junior House-Surgeon and Dispenser. Candidates must be qualified in medicine and surgery, registered under the Medical Act, and be unmarried. Testimonials must reach the Honorary Secretary, W. H. Kitson, Esq., Hemsworth, Torquay, not later than May 22.
WEST LONDON HOSPITAL, HAMMERSMITH-ROAD, W.—House-Surgeon. Candidates must be registered under the Medical Act, and be unmarried. They are requested to attend the House-Committee meeting on May 8, at 10.30 a.m. Applications and testimonials to be sent to R. J. Gilbert, Secretary, by May 6.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Crediton Union.—Mr. Edmund Rundle has resigned the Cheriton Fitz-paine District: area 10,980; population 1759; salary £45 per annum.
Hoxne Union.—Mr. George Fletcher has resigned the Bedford District: area 2759; population 921; salary £19 12s. 10d. per annum.
Maldon Union.—Dr. G. P. May has resigned the St. Peter's District: area 8636; population 5463; salary £80 per annum.
Wolverhampton Union.—The office of Medical Officer of the Workhouse is vacant by the death of Mr. H. Gibbons: salary £200 per annum.

APPOINTMENTS.

Bodmin Union.—Frederick George Stewart, M.R.C.S.E. and L.S.A., to the Second District.
Eton Union.—William H. Brecknell, M.R.C.S. Eng., L.S.A., M.D. St. And., to the Hedgerley District.
Forehoe Incorporation.—Robert Heald, M.R.C.S. Eng., L.S.A. Lond., to the Second District.
Gateshead Union.—Hugh Hopper, L.R.C.P. and L.R.C.S. Edin., to the Heworth District.
Monmouth Union.—Peter Buchanan, B.M. and M.C. Glasg., to the Coleford District.

HIP-JOINT AMPUTATION UNDER ANTISEPTIC TREATMENT.—In a thesis founded upon the history of 166 cases of hip-joint amputation performed antiseptically, Dr. Grosch, of the Dorpat University, arrived at these conclusions:— 1. The mortality from hip-joint resection performed under the antiseptic system is diminished by almost one-half. 2. The results were more favourable during the second period of the antiseptic method of treatment than in the first. 3. The operation is attended with a better chance of success the earlier it is performed. 4. The duration of the treatment under the antiseptic procedure is considerably abridged. 5. Tuberculosis occupies the first place among the causes of death after the operation. 6. The antiseptic method offers great protection against complications of the wound after operation. 7. The functional result of the operation does not seem to be essentially better under antiseptics; but is satisfactory. 8. The percentage of mortality is higher in adults than in children.—*Centralblatt für Chirurgie*, April 8.

On Monday last, at Clarence House, the Duchess of Edinburgh presented an honorary silver medal, which had been awarded to a nurse of the Kent Nursing Institution (established at West Malling, Kent), of which Her Royal and Imperial Highness is a patron, in recognition of devoted service in nursing the poor.

APPOINTMENTS FOR THE WEEK.

April 29. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Mr. F. Pollock, "On the History of the Science of Politics."

May 1. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
ROYAL INSTITUTION, 2 p.m. Annual Meeting.
MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. E. Symes Thompson will deliver the Annual Oration; after which a *Conversazione* will be held.

2. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
ROYAL INSTITUTION, 3 p.m. Dr. E. B. Tylor, "On the History of Customs and Beliefs."
PATHOLOGICAL SOCIETY, 8½ p.m. Specimens: Dr. Dickinson—Cancer of the Sigmoid Flexure. Dr. Douglas Powell—1. Specimens of Intestinal Obstruction. 2. (with Mr. Sutton) Dissection of Nerves, etc., from Addison's Disease. Mr. Boyd—Embolism of Pulmonary Artery; Rupture of Cæso-phagus. Dr. Angel Money—Caries of Sacrum. Dr. Lediard (of Carlisle)—Tumour from Spinal Cord. Mr. Pearce Gould—Lateral Asymmetry of Bones and Brain. Dr. Whipple—Aneurism of Aorta causing Bilateral Paralysis of Vocal Cords. Mr. Harrison Cripps—Disseminated Polypi of Rectum. Dr. Stephen Mackenzie—1. Ulcerative Endocarditis; 2. Ulceration of Large Intestine. Card Specimens: Dr. S. West—Defects in Valves of Heart, etc. Dr. Hale White—Edema of Vocal Cord from Aneurism of Aorta; Suppuration around Kidney, etc.

3. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.
EPIDEMIOLOGICAL SOCIETY, 8 p.m. The office-bearers for the ensuing year will be nominated. Dr. Sonsino (of Cairo), "On *Filaria Sanguinis Hominis*."
OBSTETRICAL SOCIETY, 8 p.m. Specimens will be shown. Papers: Dr. W. A. Popow, "On the Corpus Luteum." Dr. John Williams, "On the Natural History of Dysmenorrhœa."

4. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.
ROYAL INSTITUTION, 3 p.m. Professor Dewar, "On the Metals."

5. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.
ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Professor R. Grant, "On the Proper Motions of the Stars."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 22, 1882.

BIRTHS.

Births of Boys, 1357; Girls, 1326; Total, 2633.
Corrected weekly average in the 10 years 1872-81, 2655·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	803	767	1573
Weekly average of the ten years 1872-81, ...	886·8	816 4	1703·2
Deaths of people aged 80 and upwards ...	...	...	57

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	10	...	5	27	...	...	...	2
North ...	905947	2	6	8	5	35	...	3	...	...
Central ...	282238	...	3	1	1	6	...	...	...	5
East ...	692738	1	4	4	1	32	...	3	...	4
South ...	1265927	5	13	3	7	53	...	3	...	2
Total ...	3816483	8	36	16	19	153	...	9	...	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	29·679 in.
Mean temperature ...	...	49·9°
Highest point of thermometer ...	...	65·7°
Lowest point of thermometer ...	...	31·8°
Mean dew-point temperature ...	...	44·2°
General direction of wind ...	...	Variable.
Whole amount of rain in the week ...	...	0·28 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 22, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending April 22.	Deaths Registered during the week ending April 22.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)		Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.		Weekly Mean of Daily Mean Values.	In Inches.
London ...	3893272	2683	1573	21·1	65·7	31·8	49·9	9·94	0·28
Brighton ...	109595	71	51	24·3	59·8	35·0	48·7	9·23	0·74
Portsmouth ...	129916	106	71	28·5	...	...	...	...	...
Norwich ...	83821	70	37	21·7	...	...	...	...	...
Plymouth ...	74449	49	30	21·0	61·0	41·0	49·5	9·72	1·57
Bristol ...	210134	148	81	20·1	62·0	31·0	48·5	9·17	0·72
Wolverhampton ...	76756	64	50	34·0	61·7	28·1	44·9	7·17	0·95
Birmingham ...	408532	236	181	23·1	...	...	...	...	...
Leicester ...	126275	117	45	18·6	63·5	28·0	48·1	8·95	0·71
Nottingham ...	193573	180	94	25·3	66·6	25·2	47·8	8·78	0·46
Derby ...	83587	60	38	23·7	...	...	...	...	...
Liverhead ...	86592	81	42	25·3	...	...	...	...	...
Liverpool ...	560377	407	250	27·0	60·4	41·5	49·0	9·44	0·72
Bolton ...	106767	84	46	22·5	61·1	29·1	45·5	7·50	0·97
Manchester ...	340211	290	200	30·7	...	...	...	...	...
Salford ...	184904	165	91	25·8	...	...	...	...	...
Oldham ...	115572	70	44	19·9	...	...	...	...	...
Blackburn ...	106480	79	63	30·9	...	...	...	...	...
Preston ...	97656	85	46	24·6	...	...	...	...	...
Huddersfield ...	83418	53	43	26·9	...	...	...	...	...
Halifax ...	74713	56	24	16·8	...	...	...	...	...
Bradford ...	188101	103	77	21·4	62·3	32·0	46·9	8·28	0·65
Leeds ...	315998	233	129	21·3	65·0	32·0	47·5	8·61	0·12
Sheffield ...	290516	240	122	21·9	64·0	29·0	47·8	8·78	0·66
Hull ...	158814	124	62	20·4	65·0	28·0	46·9	8·28	0·49
Sunderland ...	119065	112	53	23·2	66·0	36·0	49·0	9·44	0·32
Newcastle ...	147626	113	63	22·3	...	...	...	...	...
Cardiff ...	86724	90	31	18·7	...	...	...	...	...
For 28 towns ...	8457514	6224	3677	22·7	66·6	26·2	47·9	8·83	0·67
Edinburgh ...	232440	161	96	21·5	60·4	38·2	49·1	9·50	0·93
Glasgow ...	514048	437	263	26·7	...	...	...	...	...
Dublin ...	348293	211	242	36·3	61·9	24·5	48·7	9·23	0·76

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·68 in. The lowest reading was 29·81 in. on Monday evening, and the highest 30·10 in. on Friday morning.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

An Old Member.—The charter granted in the fortieth year of the reign of George III., dated March 22, 1800, states that "Charles Hawkins, one of the principal serjeant-surgeons, shall be appointed the first Master of the College"—since altered to President. There have been several of the same name, as Sir Cæsar Hawkins, John Adair Hawkins, Mr. Cæsar H. Hawkins, and Mr. Charles Hawkins; all, we believe, St. George's men.

D.D.—The cost of the eight provident dispensaries established in the metropolis by the Metropolitan Medical Association is £1600.

F.R.C.S. Eng. by Exam.—The annual election of Fellows into the Council of the College of Surgeons will take place the first Thursday in July. There are, according to the last Calendar of the College, 1210 Fellows, including 573 who obtained the distinction by examination.

A Provincial Teacher.—You will find the questions published at page 425 of our last week's issue.

Short Sight a Fashion.—A recent order issued to the Russian army forbids any officer to wear either a *pince-nez* or eye-glass while in uniform. Spectacles also are only to be used on the issue of a medical certificate notifying that the wearer absolutely needs them. It seems that the fashion for eye-glasses and *pince-nez*, which has lately sprung up in the Russian army, has made four-fifths of the officers to have had sight.

Adulterating Milk.—At the Worship-street Police-court, on the 19th inst., at one sitting, six persons were fined in sums varying from 20s. to 60s. each for selling adulterated milk.

Central London Throat and Ear Hospital, Gray's-inn-road.—It appears that the income of this Hospital for the past year was £2036, and exceeded the regular expenditure by £390. This surplus was to go to diminish the mortgage debt, which still pressed heavily on the committee. More than one-third (£850) of the income of the institution or the past year had been received, it is said, from the self-assessed and voluntary payments of those who had applied for relief.

The Metropolitan Railways Temperance Association.—This Society is making satisfactory progress. Six per cent. of the railway servants of the metropolis are total abstainers. It may be mentioned that in India there are twenty-one railway temperance societies, having 916 members.

Poisonous Jam.—Several persons have, it is said, narrowly escaped death by poisoning at Retly, near Wellington, Salop. A woman and her four children who had eaten some "jam" purchased at a shop in the district were suddenly taken ill with all the symptoms of irritant poisoning, and, according to the statement of the medical attendant, have had a narrow escape from death. The jam has been analysed, and found to be a compound made up of "gooseberry tops," apples, rhubarb, and other things, "the mixture of which had produced a fermentation injurious to all those who partook of it." Why the product of the said fermentation was highly poisonous is not stated.

Poor-law Guardians, St. Marylebone.—It is a noticeable fact that in the late contest for guardians, although an opposition was based upon the "extravagant" expenditure in the erection of the new infirmary at Notting Hill, the old guardians have been, with one exception, re-elected.

Measles at Billington.—Dr. Pollard, Medical Officer of Health, Blackburn, reports to the Rural Sanitary Authority that measles have been almost stamped out in the township of Billington; but the disease has spread to Mellor, where it was desirable to close the schools. This has been done.

Curious, if True!—An inquest has been held at Oldham on the body of a man who died in the fever hospital in somewhat remarkable circumstances. He was sent to the workhouse on a medical certificate as a lunatic. The workhouse doctor, a day or two subsequently, sent him to the hospital as a small-pox patient, and after being there three or four days he was sent back to the workhouse as a lunatic. In ten days he was again returned to the hospital as a small-pox patient, and died on the following day, the certificate of death stating "from small-pox," although the immediate cause of death was convulsions. The jury recommended that proper accommodation should be provided where small-pox patients could be suitably treated until the disease was developed.

The British Hospital, Paris.—The Duke and Duchess of Edinburgh visited this institution on the 15th inst. They were received by the medical staff, Sir Richard Wallace, and others, and conducted through the sick and convalescent wards, infirmary, etc. Sir Richard Wallace, the founder, wishes this establishment to be known as the British, and not the English, Hospital.

The Thames Pollution.—The City Commissioners of Sewers, at their last week's meeting, came to the conclusion that it is time to adopt some action with a view to putting a stop to the pollution of the lower reaches of the Thames. The Municipality of Paris have succeeded, it is said, in solving the problem of the utilisation of sewage; but as regards the English metropolis the mass to be dealt with is immensely larger.

P., Stoke Newington.—If a man recovers a dead body from the water he is entitled to a reward of 5s., but if he brings a drowning person out alive he cannot claim any reward at all!

The Football Association.—The Secretary of this Association has forwarded £35 to the Mayor of Blackburn (being a portion of the proceeds of two matches between the Blackburn Rovers and Sheffield) to be distributed to the local charitable institutions. His Worship has apportioned £25 to the Infirmary, and £10 to the Strangers' Friend Society.

Paupers and Workhouse Stoneyards.—Complaints are not unfrequent by paupers that they are unfitted by infirmities to perform the work allotted to them in the stoneyards of our workhouses. The Lambeth Board of Guardians had this subject brought before them a few days ago by Dr. Soper, a guardian, who said he had visited the stoneyard, and there found an old man, very short of breath, put to the task of picking five pounds of oakum a day, and so ill that he could not do the work. Another man, with an iron hook in place of his right hand, was supposed to break a quantity of stones with his left hand. There was also a tailor nearly blind, and in bad health, who could not do the work set him. These men received fourpence a day and a loaf, but Dr. Soper suggested whether it would not be better to give them two shillings a week each and let them stop outside. The Chairman remarked that "the medical officer saw all cases," and the subject dropped after some discussion. The statement as made involved the great question of outdoor *versus* indoor relief.

Fog and Smoke.—The Medical Officer of Health for Marylebone, in his sanitary chronicle, says:—"The repression of fog, or rather the purifying of the air from sulphur compounds, which are slowly corroding alike the finest works of art and our own mucous membranes, though urgently needed for comfort, and even existence, yet seems, with the present appliances and ideas, a hopeless task to deal with; the more so since those who have pretended to speak with authority upon the matter have turned their attention almost entirely to the visible and palpable smoke, neglecting the invisible vapours which do the main injury. The solution of the problem demands an entire revolution of all our domestic and social habits, and the utilisation of some combustible product which contains no sulphur. That this revolution will take place within the next fifty years appears in the highest degree improbable."

An Invalid.—It is said that the climate of South Australia greatly resembles that of Sicily and Naples. During nine or ten months in the year it is agreeable. What is called winter is, in truth, a rainy season and would be considered in England a wet autumn. It is stated, however, by old colonists that each succeeding year is cooler than its predecessor.

Small-pox at Wells.—In consequence of the continued epidemic of small-pox, the sanitary authority, in accordance with the suggestion of the Local Government Board, has decided to erect a series of huts for the reception of the patients.

COMMUNICATIONS have been received from—

THE SECRETARY OF THE MIDLAND MEDICAL SOCIETY; Mr. R. J. GODLEE, London; Dr. CRICHTON BROWNE, London; Dr. DE GORREQUER GRIFFITH, London; Mr. ALBERT BRUCE JOY, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE SECRETARY OF THE MEDICAL FACULTY, University of Aberdeen; Mr. WATSON CHEYNE, London; Dr. WHITSON, Glasgow; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE MEDICAL SOCIETY OF LONDON; THE HONORARY SECRETARY OF THE PATHOLOGICAL SOCIETY, London; THE VICAR OF WEST MALLING; THE HONORARY SECRETARIES OF THE EPIDEMIOLOGICAL SOCIETY, London; THE MEDICAL OFFICER OF HEALTH, Huddersfield; THE HONORARY SECRETARIES OF THE MEDICAL SOCIETY, London; THE HONORARY SECRETARY OF THE ROYAL INSTITUTION, London; THE REGISTRAR OF THE UNIVERSITY OF ST. ANDREWS; Dr. J. M. BRUCE, London; Dr. PYE SMITH, London; Dr. J. W. MOORE, Dublin; MESSRS. C. GRIFFIN and CO., London; THE SECRETARY OF THE CAMBRIDGE MEDICAL SOCIETY; Mr. REGINALD HARRISON, Liverpool; Dr. STEVENSON, London.

BOOKS, ETC., RECEIVED—

L'Hypermégalie et la Paralyse de la Luette, par Charles Labus—The Surgery of Deformities, by E. Noble Smith, F.R.C.S., L.R.C.P.—On the Cure of External Aneurism by means of the Elastic Bandage, by A. Pearce Gould, M.S., F.R.C.S.—Transactions of the Brighton Health Congress, 1881—The Hospital Requirements of North London, by Henry C. Burdett, F.S.S.—The Cure of Epilepsy, etc., by Wm. Alexander, M.D., F.R.C.S.—Cookery and Housekeeping, by Mrs. Henry Reeve—Foods: Their Composition and Analysis, by Alexander Wynter Blyth, M.R.C.S., F.C.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Ciencias Medicas—Philadelphia Medical News—Revista de Medicina—Medical News—Canadian Journal of Medical Science—Uniao Medica—Sunday Mirror—Sanitary Chronicles of the Parish of St. Marylebone—Detroit Lancet—Therapeutic Gazette—Le Concours Médical—Revue d'Hygiène Ophthalmologia Practica—New England Medical Monthly—Weekblad—Indian Medical Gazette—Canada Lancet—Western Medical Reporter—Herald of Health—Ciencias Medicas.

ORIGINAL LECTURES.

THE CROONIAN LECTURES

ON

THE CLIMATE AND FEVERS OF INDIA.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., etc.

LECTURE II.—PART I.

THE SYMPTOMS AND COURSE OF MALARIAL DISEASES.

In my last lecture I gave a brief description of the physical characters of the country, people, climate, and prevalence of fever in India, and of the theories regarding the nature and origin of malaria. I now propose to consider the types of fever that are commonly referred to malaria, and which are of endemic prevalence throughout the continent among all classes of the people, under certain seasonal influences assuming an epidemic character. I indicated the localities in which malaria is most active, and spoke of fevers collectively as being influenced by climatic and seasonal conditions. I shall now give a description of each type. But first let me make a few remarks on the subject of Indian fevers generally. It has long been my impression that the various forms of Indian fever are closely allied to each other etiologically, and that a combination of climatic and local causes, acting on individuals of certain age, race, and personal susceptibility, account for differences in the fever processes that are set up. The characteristics of intermittent, remittent, or continued fever may be well-marked and distinct, but it is often impossible to draw a line of demarcation between them, merging, as they frequently do, gradually into each other. Cases occur which, at one or other stage, present the phenomena of all these, concluding with those of enteric fever. Periodicity, which is perhaps the most characteristic feature of malarial fever, is after all but an uncertain guide; for all febrile diseases and non-febrile malarial affections have periods of diminution or exacerbation, more or less definite or regular.

True, there is great difference between a well-marked tertian and remittent and continued fever, but the steps by which the phenomena of one pass into those of the other render the temperature chart alone an uncertain guide. In this country there may be little difficulty in diagnosing the character of a fever, or in tracing it to its proper origin, but in India there is often great difficulty in differentiating one fever from another, whilst no one symptom or pathological change can be regarded as absolutely pathognomonic of either. It would seem that, the initial process of fever being set up, the course and result are determined by individual peculiarity and by the general nature of the surroundings, rather than by any one specific cause. For instance, fevers occur in India which clinically and pathologically resemble specific enteric fever, but they seem to depend on general rather than on specific causes, unless, indeed, it be on one autogenetically produced; typhus and other specific fevers are not here referred to, but those which owe their origin to a combination of causes, and occur not only in Europeans who have recently arrived in the country, but among the whole population. Enteric fever occurs in India as it does in England, and doubtless owes its origin to the same specific cause, for I know of no reason why it should not do so, though I recognise the difficulty of defining it; but, as I shall endeavour in my next lecture to show, all fever in India, with diarrhoea, Peyerian ulceration, and typhoid symptoms, is not necessarily caused by a specific contagium derived from faecal matter or from the intestines of another person. Let me say, though, that I regard fevers generally in India as differing from those of temperate climates more in degree than in essential principles, and that the differences are determined chiefly by climate and surroundings. The writings of Pringle, Fergusson, and others show that there is no fever now prevalent in India which has not at one time or other occurred in Europe—nay, even in our islands.

The chief factors in the causation of fevers in India seem to be vicissitudes of temperature, meteorological states, terrestrial emanations (malaria) from marshy, damp, or dry soils, or from ground polluted by faecal or other organic matter, or impure water; such also being determining causes of cholera, dysentery, and diarrhoea. Of their real nature and mode of action we are ignorant, and it is extremely important that they should be thoroughly investigated; happily we know that they are to a great extent preventable and removable, and that in India attention is alive to the importance of this question. The specific poisons which produce typhus, enteric fever, and some other diseases are probably as active in India and other tropical countries as they are here; but I submit that fever with Peyerian ulceration may and does occur from other causes than faecal contamination. Nor is there, I venture to believe, any physiological or pathological objection to this; for disturbed vaso-motor action, whether from malaria or other poison, which in one man produces a congested spleen and stomach, or an enlarged liver, in another congestion and ulceration of the colon, may in a third, under modifying influences, have the effect of congesting, and finally ulcerating, the small intestine and its glandular structures. This is a question of some etiological importance in regard to preventive hygienic measures.

With reference to the alleged malarial origin of dysentery and cholera, I would remark that they seem closely etiologically linked, and that in some respects they present a closer resemblance to fevers than may at first sight seem, though they do not appear to be always under the same epidemic law of prevalence: witness a comparative statement of cholera and fever in the Madras Presidency during the past seven years.

Annual Deaths from Cholera and from Fevers in Madras during the Famine and Scarcity Years.

Year.	Deaths from cholera.	Deaths from fevers.	Remarks.
1874	313	226,220	Shows that fever and cholera are not governed by the same epidemic laws.
1875	94,546	252,042	
1876	148,193	230,092	
1877	657,430	469,241	Famine year.
1878	47,167	374,443	Effect of famine still operating.
1879	13,296	285,477	Ditto.
1880	613	209,904	Ditto.

Ancient Hindoo authors, says Mr. Anodochurn Kastogiri, a learned Bengali physician and graduate of Calcutta, mention symptoms of cholera as being prominent in a certain type of fever called jewar-atishar, literally "fever with excessive diarrhoea," and he remarks:—"It has been observed that both may break out simultaneously, or one follow in the track of the other. In practice, mixed attacks of cholera and fever are frequently seen." An attack beginning with symptoms of fever may end with cholera, or *vice versa*. And even recently such an epidemic was devastating Amritsar in the Punjab.

The reduction of fever mortality since sanitary measures have been introduced into India, shows how amenable the causes are to sanitary interference. Martin, writing twenty-six years ago, says: "Intermittents which are most frequent throughout India in the rainy season attack the European and the native soldier in nearly the same proportion; the mortality in both approximating closely." Sanitary work has made great strides in India since then, and one result is that the death-rate from fever is three instead of thirteen in the thousand; it continues higher in the native troops simply because they are not subject to the same sanitary control as the European soldier.

Intermittent fever as a consequence of exposure to malarial influence is frequent, and is much the same in India as in other parts of the world. There are the same premonitory symptoms, chills and rigors, followed by pyrexia, diaphoresis, and an apyrexial interval of freedom: the same evidence of disturbed vaso-motor action, congestion and functional derangement of viscera: and the same typical forms—the quotidian, with the recurrence in twenty-four hours; tertian, in forty-eight hours; and quartan, in seventy-two hours. These have been further divided into double quotidian, double tertian, triple tertian, double quartan, and so on;

whilst, on the other hand, the intervals have been extended to weeks, months, and years.

But it is needless to trouble you with these details. The average duration of the fit is said to be about sixteen hours in the quotidian, ten in the tertian, and six in the quartan; but these are subject to so much variation that the types are exceptional. The period of exacerbation is generally early morning for the quotidian, noon for the tertian, three to five for the quartan. Tertian seems to be most common in Europe, then quartan, and lastly quotidian. In Africa, the West Indies, and India the quotidian is most frequent; in Burmah, according to Murchison, 83.5 per cent. quotidian, and 1.6 per cent. tertian.

Morehead says that in the European General Hospital, at Bombay, the greater prevalence of the quotidian type was noted by him.

Dr. Chevers says: "In Lower Bengal, intermittent fever assumes the quotidian type in natives, and the tertian in Europeans. In upwards of twenty-seven years' experience I do not believe that I ever saw tertian in a native. A case of quartan never occurred in my practice."

Quotidian ague is apparently the type in first attacks in India. Tertian occurs more frequently in those who have suffered previously, and in whom alternations of temperature, fatigue, irregularities of living, and so on, have re-excited it—evidence not of recent, but of pre-existing disease. According to Morehead, quotidian prevails in the rainy season of the south-west monsoon from May to October; tertian in the cold season as the result of alternation of temperature, and in those who have resided long in malarious localities, and is frequently complicated with enlarged spleen.

Natives suffer in a greater ratio than Europeans, though there are certain tribes that appear to acquire some immunity.

Men are more liable, two to one, than women of the same class; children suffer at about the same rate, but the mortality is 1 per cent. greater—probably due to fever complicated with dentition and other affections, or to the difficulty of administering quinine in proper doses to young children (Waring). Officers who are more favourably placed suffer half as much as the men.

My own experience confirms the frequency of the quotidian, though it has always appeared to me that the day and hour of the recurrence of the paroxysm are apt to be most irregular and uncertain. This irregularity is perhaps peculiar to Indian paroxysmal fevers, and in temperate climates the periods may be more regular. It is probable, too, that the early use of antiperiodic remedies may modify the natural course of the disease, and, when it does not prevent, may render the return of the paroxysms irregular, or transform ague into remittent; the former showing improvement, the latter aggravation of the disease. Determinate periods are not of much pathological importance, I think: when a man contracts ague the type will depend on himself, his antecedents, and his surroundings, not on difference in the nature of the disease.

I need not enter into the various theories of fever which place the *fons et origo mali* either in the blood or in the nervous system; the cause being something inhaled, ingested, or autogenetically produced—which, circulating, affects the nervous system directly through the blood as a carrier, or through the blood itself, altered by the poison. An ague clearly is a neurosis in the outset: the *materies morbi*, acting on the central nervous system, sets up vaso-motor irritation, which causes dilatation and engorgement of the vessels supplied by the splanchnic, the skin and external parts being brought into an opposite condition; the result is the rigor, and pallid shrunken skin, whilst there is internal congestion, which is followed by reaction, when the skin and exterior parts become vascular, the signs of pyrexia appear, followed by profuse sweating, and then a return to the normal condition. Such are the phenomena; but why malaria should produce them I can no more say than why strychnia excites or conia depresses the cord, or why one set of nerve-fibres determines contraction, another set dilatation, of vessels. I doubt if any right explanation of periodicity in disease will be given until we can explain it in health—until we can give the physiological rationale of the cardiac, respiratory, or catamenial rhythm, of the diurnal pulse and temperature wave, and so on. We can only say that certain conditions are induced by poisons or

impressions acting on the centres, which in one case modify, in another altogether derange, the normal rhythm, substituting for it altered temperature, tissue-change, and exaggerated neuro-dynamic states, as seen in the paroxysms of an ague or in the thermic wave of a remittent fever.

The light thrown on the functions of the nerve-centres during the last quarter of a century enables us to indicate the part disturbed, but we know no more of the intimate nature of the molecular changes which result than we know how quinine diminishes blood-pressure or effects periodicity, or how a drop of cobra virus so instantly changes the respiratory centres as to paralyse them; but we do, to a certain extent, know how to modify, control, or even prevent them. The importance of recent investigations into the nature of malaria and the mode of its action cannot be exaggerated; we owe a debt of gratitude to those who are working in such an earnest spirit to ascertain the truth.

The cold stage of fever is generally preceded by indisposition, lassitude, weariness, muscular pains, dull aching sensations extending along the course of the trunks of the large nerves, yawning, sighing, sneezing, anorexia, thirst, headache, occasionally a coated tongue, nausea, or vomiting; sometimes loose, dark-coloured motions. Slight rises in temperature, sometimes followed by slight diaphoresis, may, especially in those who have suffered previously, constitute the whole paroxysm, and, passing away, leave the patient well as before; but frequently they usher in a rigor more or less severe—preceding which there is increased elimination of urea (as shown by Professor Parkes and Sydney Ringer), which, commencing before, is continued through the cold and pyrexial stages, diminishing during the intermission until it falls below the standard of health. The amount of urea and the temperature stand in relation to each other, the result of increased metamorphosis, and not increased elimination after previous retention. The state of the urine of twenty-four hours on a fever day, and on a non-fever day, was examined and compared by Parkes. He found that the watery part is increased before and during the cold stage; most abundant at the termination of the cold; it decreases slowly during the hot, rapidly during the sweating stage, and does not appear to stand in relation to the quantity of water drunk. The uric acid is also increased considerably during the fit, and after it urates are deposited freely, though to this there are occasional exceptions. The chloride of sodium is increased during the hot stages (Traube and Ringer) to five times its amount, and phosphoric acid to one-eighth (Nicholson). M. L'Héritier (Waring) gave the density and mean composition in the different stages in twelve patients:—

				Cold.	Hot.	Sweating.
Specific gravity	...	...	...	1017.330	1020.304	1022.820
Water...	...	...	...	967.520	964.680	961.845
Solids ...	...	...	...	32.480	35.320	38.155
Urea ...	...	...	...	9.845	9.015	7.624
Uric acid	...	...	...	0.660	0.980	1.029
Salts and organic matter	...	...	...	21.975	25.325	29.502

Zimmerman found the specific gravity to vary between 1018 and 1025. (a) Dr. Nicholson (b) found that during the cold and hot stages the amount of urea was nearly doubled, and the chloride of sodium increased to five times its normal amount. In these stages he noticed a great increase in the quantity of water. In some cases albumen, blood, and renal casts are found (Parkes).

The chilly feeling as if cold water were running down the back soon passes into rigors, the features are shrunken and pallid, the fingers shrivel and turn blue, the skin is rough (goose skin), the body is in a state of tremor, the teeth chatter, and the muscular system is convulsed until the bed or couch is shaken. There is often nausea, sickness, headache. The temperature, notwithstanding the feeling of external cold, is high, and there is a sense of internal heat which is very distressing; this and the nausea or retching are due to the highly congested state of the gastro-intestinal mucous membrane. The temperature begins to rise before the chilly sensation comes on, and attains its maximum, which may be 105° to 106°, towards the end of the hot stage. In absolutely typical cases the temperature returns during the interval to its normal standard. This cold stage varies

(a) Casper's Wochenschrift, April, 1848.
(b) Madras Medical Journal, July, 1863.

in duration from a mere passing chill with barely perceptible rigor, to severe shiverings, lasting two or more hours; reaction then takes place, bringing in the hot stage. The following is so good an account of an attack of Indian malarial fever, by a layman, that I quote it. The writer is Mr. Edwin Lester Arnold:—"On February 14," he says, "it came on about breakfast time, when a bad headache was rapidly succeeded by a fit of ague, which set me shivering; so that it was scarcely possible to stand up, and quite impossible to do any work whilst it lasted, which was about two hours. Then succeeded the hot stage, with sharp pains in every joint and limb, accompanied by a fierce throbbing headache, and a terrible thirst which no amount of drink would allay. From twelve o'clock to midnight I was too ill to stand up; then the attack passed off, and by five the next morning, though still weak, I was able to get to work." (He refers to his work as a coffee planter). "On the top of this, and perhaps resulting from it, I had fever three or four times, and began to feel my strength ebbing fast. Generally a sense of oppression about the head, and pains in every limb, heralded the approach of an attack, when I sought the shelter of the hut, and lay shivering or burning all through the long hours of the hot mid-day, while the creepers swung monotonously to and fro, and the jungle cicadae set the forest vibrating with their horrid music. But once I was caught by my enemy when out at work, and felt the full force of his power in a way not easily forgotten. I had risen at dawn as usual, and in particularly good spirits accompanied the coolies to the daily purgatory. The sun had scarcely topped the trees when I felt the fever coming on again; the fever increased, my head throbbed and swam, and my teeth began to chatter though there was a burning sky overhead! Still I pushed on, crawling under some logs and over others, but the two miles [to his bungalow] were more than I could manage, and half-way in the middle of a big clearing my strength ran out, and I sank down on a log, sensible only that for all the riches which Cræsus ever owned I could not move another step. Then came the cold fit, and the mid-day sun glared down on me for a couple of hours without for a moment checking the 'shivers' which shook me from head to foot. This was again succeeded by the hot stage, when I felt my blood throbbing backwards and forwards like molten lead, and a consuming thirst drove me half mad; but there was not a drop of water to be had anywhere, and not a living thing in sight—nothing but the hot glaring ashes on which I was lying; and the last thing I remembered was, sitting up and shouting for water at the top of my voice. I must have fallen asleep after this, for when I roused myself the sun was low down behind the trees; and limp, weak, and fearfully dirty, I staggered to my feet. Half an hour afterwards a dejected-looking Englishman might have been seen mustering his thick ring of dark-skinned coolies. How it was got through goodness only knows. I have an indistinct remembrance of placing a finger on each long native name and reading it over three or four times to get the right sound, while everything swam before me, and, when the end of the column came, suddenly locked myself in, and just as I was, got supperless to bed."(c)

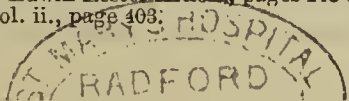
Dr. Impey (Waring) found that the average duration of the cold stage in 108 cases was one hour and twenty-five minutes, of the hot two hours and three minutes, and of the sweating forty-eight minutes. But there were great variations. In three cases there was no cold stage at all. In two it lasted ten minutes; in three not more than fifteen minutes, and in nine about half an hour. The longest duration of the cold stage was nine hours. In 240 cases treated by Dr. Waring in Mergui Civil Hospital, there was no distinct cold stage in 116 cases. The temperature rises in the body (taken in axilla and rectum) during the cold stage, but the extremities are below the normal standard, according to Dr. Dunglison, (d) and Gavaret (e) found it so in six persons of eighteen to thirty-six years of age—97.5° to 100.5°—104.5° Fahr. In five experiments the thermometer stood only 2° higher in the hot than in the cold stage. The cold stage is not always free from danger; when the action of the poison has been very intense, the nervous force seems to be overwhelmed by it; an algid state supervenes, the heart fails, the skin becomes cold and clammy, and the patient may die in a state of collapse; or, after remaining for hours

—it may be forty-eight hours—in this condition, reaction takes place and the hot stage sets in; in other cases, after partial reaction, the symptoms of collapse supervene. Happily this is rare; it so closely resembles the collapse of cholera that if the patient be seen for the first time when in that condition, there might be some doubt as to the diagnosis. Instances are recorded by MacCulloch and others of persons having died in a few hours in the Maremma of Tuscany from the intensity of the poison! Pringle says, page 175: "Several of the men were seized at once with burning heat and a violent headache—some feeling a short and slight chilliness before the attack, others mentioning no particular disorder. They also complained of intense thirst, aching of the bones and pain of the back, great lassitude and inquietude, frequently of nausea, sickness, or a pain about the pit of the stomach, and sometimes they vomited green or yellow bile of an offensive smell. The pulse upon the first attack was generally depressed, but rose on bleeding. There were some instances of the head being so suddenly and violently affected that without any previous complaint the men ran about in a wild manner, and were believed to be mad till the solution of the fit by a sweat." During this stage the spleen and other abdominal viscera and gastric intestinal mucous membrane are much congested; hence the nausea and vomiting that frequently occur. Cardiac action is also depressed, and the pulse fails. After a certain duration reaction takes place, the skin becomes hot and flushed, the pulse quickened; the temperature rises to 103° or 104°, sometimes as high as 105° or 106°; the urine is diminished, and there is thirst; the heart and arteries pulsate violently, the head aches, the temples throb, and delirium may supervene. This stage lasts for an uncertain period, from an hour to twelve or fourteen hours—I saw a case recently in which it had lasted fourteen—but at length gives way; moisture bedews the forehead and gradually the whole body, until the patient sweats so profusely as to saturate the clothing and bedding. This continues for a variable period, when a condition of apyrexia is established and the patient feels relieved, though greatly exhausted; in this state he continues till the recurrence of the next paroxysm, which is also not free from danger, for fatal syncope or exhaustion may occur. When this seems to threaten, the patient and his attendants should be warned against an attempt to rise or make any exertion. This has been impressed on me by more than one case. A staff officer in Calcutta, who had just gone through a paroxysm when I saw him—a long hot stage had passed—lay pale, exhausted, and bedewed with cold, clammy sweat, but felt much relieved and was reading. He expressed a desire to remove into another room, but, observing his depressed condition, feeble voice and pulse, I instructed his attendants on no account to allow him to move. Shortly after I left he rose, made a few steps, sank, and died on the floor. This collapse is most prone to follow a protracted hot stage. After an interval the paroxysm is renewed; as it approaches, the pulse becomes depressed, slow, and weak, and as the cold stage sets in is small and irregular. The phenomena just described may occur only once or twice, but are often repeated, unless broken and modified by antiperiodics or by removal from the place where the fever was contracted. The duration of the stages varies; one or other may even be absent, and though an attack of fever may not exceed a few paroxysms, yet repetitions are frequent, and to them various complications are mainly to be attributed. Twining pointed out—"The frequency and obstinacy of visceral diseases which accompany intermittent fever in India are characteristic, and there is hardly any organ which is not sometimes found affected with disordered function or diseased structure in persons who have been long subject to paroxysmal fevers in which there is a frequent return of the cold stage with more or less regularity in its accessions." The liver, the spleen, and the portal circulation are prone to be affected, the spleen often very rapidly. But any of the abdominal or thoracic viscera may suffer. These attacks of fever are very liable to occur when the diurnal changes of temperature are great; i.e. at the commencement of the cold and during the drying-up seasons. The system, saturated by the poison during the heat and damp, is predisposed to suffer from the change, and fever is then most readily developed; it is after repeated recurrences of these paroxysms that the visceral changes occur which pass on to a state of chronic disease, producing anæmia, cachexia, and debility. In this condition, and even

(c) "On the Indian Hills," by Edwin Lester Arnold, pages 218 et seq.

(d) "Practice of Medicine," vol. ii., page 403.

(e) "L'Expérience," vol. x.



long before it, the regularity of the paroxysmal returns is broken, and the intermissions are incomplete. Sweating, chills, rise of temperature, general depression of health, disordered secretions, anorexia, pallor, abdominal distension, and diarrhœa supervene, and, if not remedied by treatment or change of climate, may result in hopelessly broken health, or in death; and thus numbers drag on a miserable existence in the more malarial districts, or, if Europeans, seek to regain health by returning to Europe.

This condition of chronic malarial poisoning, with occasional returns of ague, neuralgia, brow-ague, hemicrania, or asthma, in an imperfectly developed form, must be familiar to most of my audience; as is also the extraordinary tenacity with which this feverish tendency clings to old Indians who have suffered from intermittent or remittent fever in India, and sometimes too in persons who present little indication of malarial cachexia; though probably, on examination, some enlargement of spleen or liver would be found.

The period of incubation varies, depending probably on the intensity of the miasm and on the susceptibility of the individual affected, the condition of his health at the time, and so on. Cases have been recorded where the virulence has been so great as to induce immediate collapse; whilst it may have been so slight as to induce simply disturbed health or some of the anomalous symptoms known as masked malarious fever; and it is worthy of note that some persons say that after taking quinine for some time the drug itself produces similar symptoms. Those who have suffered before seem to be most susceptible; indeed, a chill without the intervention of fresh malarial influence is sufficient to develop fever, as is so often seen in cold and damp climates. A few days in some cases, in others it may be a month, intervene after exposure to malarial influences before a well-marked attack of fever appears, though malaise, headache, etc., may have been present for days. Whether the attack will be ague or remittent, depends probably on individual peculiarities, the character of the miasm, and that of the locality. Where a party of men have been exposed to the emanation of some malarial locality, different types of fever may result; one will have ague, another remittent, a third may only feel rather ill, another may have dysentery or even choleraic symptoms. I have known more than one case where a month elapsed after exposure before the first paroxysm of ague ushered in an attack of fever, which assumed the remittent form. Simple ague, however, generally occurs earlier, in a few days or even hours. Among the inhabitants of notoriously malarious districts a considerable proportion do not suffer from either ague or remittent, but present a sallow anæmic appearance, with blanched lips and eyelids, pearly eyes, tumid abdomen, weak and irritable heart, hæmic murmurs, and a general appearance of cachexia, dulness, and hebetude; or there may be neuralgia, asthma, albuminuria; or it may be anasarca and ascites. The spleen is enlarged and often indurated, and the liver also enlarged, but not so frequently as the spleen. The bowels are irritable, diarrhœa is not unfrequent, and as the cachexia progresses there is a tendency in the discharges to assume the white appearance of the so-called tropical diarrhœa. The cachexia becomes more profound, and death follows from asthenia, or, as I believe, not unfrequently from coagula in the right heart or pulmonary artery.

The appearance of the first paroxysm of ague is not to be regarded as determining the duration of the period of incubation, for symptoms of a less definite kind often precede it, and they at last culminate in the fit; sometimes no distinct febrile paroxysm occurs at all, and the patient gradually lapses into the state of cachexia I have described. Europeans, who generally get away before matters have advanced so far, are often surprised by having a first attack of ague after leaving. I have repeatedly seen people from Assam and other parts of Bengal, who, during a long residence there, have never had fever, become so affected, the paroxysm probably occurring on board ship, or after arrival in England. In this state, especially where the spleen is enlarged, the patient becomes hæmorrhagic or scorbutic, and there is a tendency to ulceration or gangrene; noma, gangrene of the scrotum, or cancrum oris, frequently occur among natives, and the slightest abrasion or ulceration is apt to pass into a state of phagedæna. In this condition there is a tendency to the formation of fibrinous coagula in the heart and arteries, before referred to; death frequently

occurs rapidly with symptoms of apnœa. The tendency to embolism in the arterial circulation is shown in the gangrene of limbs and other parts. I have often seen a limb in peril from the plugging of its main artery. I have elsewhere described the great tendency that there is to this ("Clinical and Pathological Observations," page 95), and how frequently it proves a source of danger and of death in the course of other diseases to persons who have lived for some time in a malarious climate; or operates in a minor degree, producing boils and abscess; and here I would call attention to another morbid susceptibility impressed not only on those who are the subjects of malarial cachexia, but on others who, living in a malarious climate, are subject to its influences. I refer to the so-called urethral fever, so apt to follow on catheterism, however, skilfully performed. The mere passage of an instrument will in some cases produce a severe attack of rigors, followed by fever and sweating, and it may give rise to symptoms of a pyæmic nature. I have recorded such cases in "Clinical and Pathological Observations," and although it more concerns our surgical colleagues, I venture to bring it before you, as whatever may result from malarial poisoning must interest all. I have not time to dwell on this subject, but have treated of it fully elsewhere, and would ask those to whom the subject may be of interest to refer to what I have written (in "Clinical and Pathological Observations in India").

I may also notice a peculiar form of fever which is apparently connected with a malarial origin, in which the spermatic cords, epididymis, scrotum, and occasionally the prostate gland, are congested and swollen, attended with great suffering, and sometimes accompanied by gastralgia, nausea, and vomiting. The association of this form of fever with elephantiasis is not unfrequently observed, attending the periodic hyperæmia which leads to permanent hypertrophy—a condition frequently associated with a disordered and dilated state of the lymphatics, and accompanied by, if not dependent on, periodic returns of fever, which the natives attribute to lunar influences, and by the presence of filariæ in the blood, as pointed out by Lewis, Manson, Bancroft, and others. These febrile recurrences are sometimes called elephantoid fever; and the condition of hypertrophy, elephantiasis, which thus seems to be closely related etiologically to other forms of malarial fever.

Pathological Anatomy.

Death in an uncomplicated case of ague is rare. As Maclean says—"The direct mortality from intermittent fever in India is small. In Bengal, out of a strength of 344,152, with 111,687 admissions, the percentage of deaths to strength was 0.24, of deaths to admissions 0.76." Death in the remittent and pernicious forms, and from complications and sequelæ, is frequent. The simple attacks involve no change in structure, and indeed, where death occurs early in the pernicious forms, there may be no evident structural change. But malarial influences, when protracted, involve changes in the blood and viscera, especially in the spleen and liver. Those in the blood are secondary, resulting from imperfect elaboration by damaged blood-making organs, destruction of red corpuscles, and transformation of hæmatine into pigment, high temperature, and in some cases to loss of albumen owing to renal disease. The relative proportion of red and white corpuscles is altered—some authorities say the latter are increased; there is excess of water, and the red cells are relatively diminished. Hertz says—"It has not yet been possible to demonstrate a multiplication of the colourless corpuscles." There is an accumulation of yellowish-brown or dark pigment in the blood which is the result of the destruction of the red corpuscles.

This condition of anæmia goes on increasing, inducing dropsy, œdema, and deposit of pigment, which explains the discolouration of certain viscera seen after death, and also the yellowish and brownish colour of the skin in life. This pigmentation has been regarded as of great significance. Hertz says—"A number of serious disturbances are associated with this condition of the blood, with consequent disturbance of the organs in which it occurs . . . the ashy grey colour of the skin, an interference with secretion of the liver by obstruction of the branches of the portal vein, and of the flow of bile (icterus), secondary atrophy of the liver followed by ascites, hæmorrhage from the stomach or bowels, after obliteration of the numerous hepatic vessels . . . dangerous brain symptoms, delirium, coma, sudden

death." But he further remarks "that it is true that severe brain symptoms occur where the pigment is absent." The albumen and fibrine, it is said, are diminished, but I am inclined to believe, as I have elsewhere stated, that the blood becomes hyperinotic, and acquires the dangerous tendency to form clots and emboli.

A careful examination of the blood in this state is much needed. Anthrax and furunculi are attributed to pigmental obstructions of the capillaries, but I would rather attribute them, and other consequences of obstruction, to fibrinosis. The albumen and blood in the urine may depend on passive hyperæmia; but in more chronic cases it probably is a result of chronic renal degeneration. The mucous membrane of the gastro-intestinal tract in chronic malarial poisoning will be found chronically diseased, the stomach and duodenum being most prone to suffer; disease may occur anywhere throughout the entire tract, and may explain the pathological changes which have given rise to the opinion that they were due to the specific poison of enteric fever. It may be remarked that the anatomical structure of the lower end of the ileum favours tension during congestion, and, if so, ulceration. The spleen, during the initial paroxysm, becomes hyperæmic and distended, and may be felt below the ribs; it may become hard and friable, or soft and pulpy. The pulp is increased, and the capsule and trabeculæ are somewhat thickened; it occasionally is so soft as to assume the appearance of a sack full of blood. Inflammatory products may be combined with hypertrophy (ague-cake). The spleen sometimes attains great size; in rare instances the capsule becomes considerably thickened and tough, and the normal weight of five to seven ounces increases to pounds. As much as eighteen or twenty pounds have been recorded—even forty pounds,—whilst it has been found as low as two ounces (Russell). In the soft and pulpy state it is easily injured, and is frequently the cause of fatal accidents—sometimes spontaneous rupture among natives. As in the liver, a process of contraction of its fibrous elements, a state of cirrhosis, may be induced, the structural change becoming permanent. In this state of the spleen the blood becomes leucocythæmic, and anæmia is the result. Change of climate and treatment may remove the enlargement, but whilst it remains it is an abiding cause of fever and cachexia, and the ague or other manifestation is apt to recur on the receipt of a chill, fatigue, or an attack of indigestion. The liver also may become chronically congested and indurated and enlarged from interstitial deposit, but not to the same extent as the spleen. It is dark in colour, marked with pigment patches, or may be somewhat softened as well as enlarged. In this condition its functions are impeded, and various complications result. In some forms of remittent there is vomiting and purging, a jaundiced condition of the skin, absence of bile in the dejecta, and deepened colour of the urine. This may be attended with constipation or flatulence, in some cases diarrhœa, the food being hurried out of the intestines as a light-coloured fæculence. Acute inflammation of the liver seldom occurs in this state, but occasionally it suppurates insidiously; the rigors that accompany this are liable to be confounded with those of fever, and it is only pain and bulging that at last reveal their real character. The muscular system may also degenerate, the heart sharing in the change and becoming a source of danger and suffering. I have seen cases of this kind lately, in which, while other signs of malarial poisoning had disappeared, the cardiac asthenia remained. Changes also take place in the cerebro-spinal centres and membranes: effusion, exudation, and thickening may occur, causing partial paralysis of the limbs, or obscure cerebral symptoms; hyperæmia of the cerebral and spinal substance, punctiform extravasation, pigmented patches, discolouration and effusion of serum into the membranes of the brain or cord; or, it may be, molecular changes in the centres themselves. Several cases of partial paralysis have appeared before me, and I can recall others in India—one in a distinguished officer, to whom it long proved a source of disability. In some cases there is but too much reason to fear that the structural changes are of permanent character. Still, it is encouraging to know how completely, though it may be slowly, many of these lesions are recovered from in a temperate climate. I have alluded to the influence of malarial poisoning on the genital organs and spermatic cords, which become intensely congested and enlarged; the whole area of distribution of the genito-crural

nerve and nerves of the cord share in the mischief, whilst the structural changes resulting from exudation or effusion are sometimes serious. The enlarged cords widely distend the abdominal rings and cause hernia, whilst the visceral congestion, extending to the kidneys, gives rise to albuminuria. The kidneys, in some fatal cases of malarial fever, may be found swollen, congested, and undergoing structural changes. In cases that have become complicated with dysentery, which is common enough—indeed, some would say this is only another form of the same disease—serious structural changes are often found in the colon and rectum; ulceration and thickening in various stages, which are not always confined to the large gut, but extend beyond the ileo-colic valve into the ileum, where ulceration of the mucous membrane and of Peyer's patches resembles that of specific enteric fever.

Malarial fever has also a decided effect on wounds.

Mr. Eccles, a surgeon of the Stafford House Ambulances during the late Russo-Turkish campaign, made some observations on certain forms of malarial poisoning and their local effect on wounds, which I can confirm from experience. "The local effects of malarial fever on wounds differ according to the stages. In the cold stage the discharge decreases in quantity, and sometimes, if it be prolonged, ceases altogether; the surfaces of the wounds will look bloodless or appear congested, and change in colour from a bright red to a dull purple or grey hue, the granulations being pale and bloodless. Pain is rarely complained of, a sense of numbness being often referred to the wound. In the *hot stage* all the local symptoms undergo a decided change—the discharge becomes thick, copious, and sometimes foetid. Sloughing occurs in many cases; the surface of the wound looks angry and inflamed; the granulations are florid, sensitive, and bleed on being touched; sometimes on removal of the dressings the surface of the wound is bathed with blood; the edges are puffy, swollen, glistening, and painful, an area of redness extending some distance round the wound, with burning or throbbing in the seat of injury. During the intermission the wound generally resumes its ordinary appearance, but not unfrequently the inflammatory action set up during the hot stage continues, and the local effects remain after the cause has ceased to exist."

The following cases illustrate some of the conditions I have described:—

Case of quotidian in a young man from a part of the district of Dacca, which had been fever-stricken for several years.

Râm Chunder Dé Bhumika, aged twenty, was admitted into hospital on the evening of March 5, 1874, with fever.

His case is of much interest, as he resided as a domestic servant for four months in the village of Dásora, in the centre of the fever-stricken tract of Manikgange.

In October, 1873, he was attacked with fever. At first he had daily accessions, but no diarrhœa. He took English medicines from the dispensary, but they did not benefit him. In November the fever left him, and for nearly a month he was comparatively well. It then returned, assuming the quartan form; during the last two months has had irregular attacks.

On March 3, while employed at manufacturing string, he was seized with shivering, aching, great lassitude, followed by fever, which lasted several hours, and then abated after profuse perspiration. On the 4th he worked as usual, but in the evening the fever returned. At 12 a.m. to-day (5th), preceded by chilliness, great headache, and thirst, the fever came back. On admission at 5 p.m., the spleen was found much enlarged, and the tongue was covered with a dirty white fur. Had no vomiting or nausea. Bowels regular; pulse 94; respirations 30; temperature 101.7°.

March 6.—7 a.m.: Temperature 97.1°; urine specific gravity 1010, chlorides abundant. 5.30 p.m., pulse 64; respirations 28; temperature 99.7°. One stool to-day; tongue clean, flabby, and indented by teeth; urine 1018.

7th.—7 a.m.: Pulse 56; respirations 20; temperature 97.6°. Says that he felt feverish last night. Tongue pale and flabby. Liver is enlarged as well as spleen. Urine 1018. Quinine gr. xxx. ter in die. 5.30 p.m.: Fever began at 4 p.m. Pulse 88; respirations 24; temperature 102.3°. Has headache, burning of eyeballs, general pains, and thirst. Felt chilly before the accession, and he has passed water frequently since in large quantities. Urine 1021.

8th.—7 a.m.: The fever left about 12 p.m. with sweating.

The aching of the body, however, is still felt. Pulse 52; respirations 22; temperature 97.5°; urine specific gravity 1010, chlorides in excess. 5.30 p.m.: Fever began at 1 p.m. with violent shivering. His body is burning, and every bone and joint is aching; has great thirst, but no vomiting. Severe frontal headache, eyeballs painful to pressure; had irritation of bladder during cold stage. Pulse 130; respirations 40; temperature 105.3°; urine specific gravity 1019, chlorides abundant, no albumen.

9th.—7 a.m.: The fever did not leave with sweating, but gradually lessened towards 4 a.m. Pulse 76; respirations 22; temperature 90.7°; urine 1015. Castor oil an ounce at once, and after four hours, quinine twenty grains. 5.30 p.m.: Had three stools to-day. Eyeballs still burning, head heavy; pulse 74; respirations 24; temperature 99.6°.

March 10.—7 a.m.: Conjunctivæ yellowish and muddy. Pulse 56; respirations 22; temperature 97.1°; urine 1019. Morning cold and damp. 5.30 p.m.: Only diaphoretics given to-day; sweated slightly at noon. Pulse 70; respirations 24; temperature 98.7°; urine 1020. Milk 4 lbs. daily.

March 11.—7 a.m.: Eyeballs smart and feel hot. Pulse 56; respirations 22; temperature 97.1°; urine 1010, chlorides abundant. Spleen mixture begun to-day. 5.30 p.m.: Two stools to-day. Pulse 64; respirations 24; temperature 98.3°.

March 12.—7 a.m.: Two stools during night. Pulse 48; respirations 20; temperature 96.4°; urine 1005. 5.30 p.m.: Pulse 58; respirations 28; temperature 98.1°; urine 1003.

March 13.—7 a.m.: Pulse 46; respirations 20; temperature 96.1°; urine 1016. 5.30 p.m.: Pulse 60; respirations 26; temperature 98.3°; urine 1010, chlorides abundant. Recovered.

T. D. B., aged twenty-four years; service in India two years ten months. Of nervous temperament.

Landed in Calcutta in good health in November, 1878. Three days after arrival was attacked with fever and diarrhoea; improved under treatment, and embarked for Rangoon two days later, in a somewhat weakened state of health. Fever returned at sea, and was again accompanied by diarrhoea; the evacuations being at times very frequent, and occasionally consisting of blood and slime. Reached Rangoon on November 21, feeling better.

"Remained in fairly good health for more than a year, and was not under treatment again until February, 1880, when suffering from nervous debility.

"Later on in the same year, after a day's hard work in swamp and jungle under a hot sun, had an attack of intermittent, the paroxysms occurring every second day. Took fifteen grains of quinine daily. Recovery took place in about eight days. From this time until the present attack of fever, which commenced ten days ago, has been in fairly good health. I cannot ascribe the attack of fever to any special cause; it was of an intermittent character, fits occurring on alternate days. Was ordered to take five grains of quinine three times a day, and has done so until the date of arrival on July 24."

Civil Surgeon's report:—

Mr. B. came under treatment July 24, for ague of the tertian type. During the latter part of last year he was under my care for a similar fever. He was anæmic and emaciated. The paroxysms set in on alternate days, commencing with rigors, succeeded by burning heat of skin, followed by sweating. During the fever-free days, languor and headache are the prevailing symptoms. There is complete loss of appetite, no power of exertion, disturbed sleep, and frequent diaphoresis. Increased doses of quinine were followed by no abatement of fever, but produced more copious sweating. In the course of a few days the character of the fever altered. It was no longer regular, fits of fever became of daily occurrence, and sometimes two or more exacerbations took place on the same day, or copious perspiration would set in without any preceding fever. Sometimes an interval completely free from fever occurred, but headache was seldom absent. The quantity of quinine was further increased to thirty grains daily, given in ten-grain doses at regular intervals.

Later on, thirty and thirty-five grains were administered in a single dose, but any advance on this produced nausea. In spite of the treatment the fever gained ground, further reducing the patient's already enfeebled health.

It was obvious that removal was absolutely necessary, and, considering delay might be attended with danger, he was sent to England, where he regained his health, though still subject to occasional slight recurrences of fever.

CLINICAL LECTURE ON NEPHROTOMY AND NEPHRECTOMY.

Delivered at the Samaritan Free Hospital, April 19, 1882.

By J. KNOWSLEY THORNTON, M.B., C.M.,
Surgeon to the Hospital.

THE presence of two cases of nephrectomy in my wards at the same time, and the fact that between them they illustrate much of the whole subject of nephrotomy and nephrectomy, seems to me to offer a favourable opportunity for some clinical remarks on these two operations, which are, I believe, destined to hold a very important place in the surgery of the future.

The pathological conditions of the kidney, which may call for the interference of the surgeon, are—calculi in the kidney or ureter; suppuration in the pelvis of the kidney depending on the presence of calculi, and the obstruction it causes to the escape of the urine (calculous pyelitis); suppuration depending upon scrofulous or tubercular disease (pyonephrosis); hydronephrosis, which may arise from several different causes, or be congenital, as I believe was the case in my first successful nephrectomy, performed on a child aged seven (*Lancet*, June 5, 1880); loose or floating kidney; certain rare forms of cystic disease; and the more solid neoplasms.

The surgical procedures which have been or are now employed for the relief of these conditions are—aspiration or tapping, which is of course only palliative; nephrotomy, i.e., incision into the kidney; and nephrectomy, or complete removal of the organ.

It is beyond my present purpose to go into the whole history and statistics of these operations; those of you who wish to study the subject will find ample material in the excellent papers of Barker in the *Medico-Chirurgical Transactions*, and those of Czerny and others, with the debate on nephrectomy published in the *Transactions of the recent International Medical Congress*. I wish, while my own cases are fresh in your minds, to direct attention to the various steps of the operations, the complications likely to be met with, and the comparative advantages afforded by one method over another.

Lumbar section is much in favour with some surgeons, and as it is the most suitable operation for the class of cases first named in my list of pathological conditions, we will take it first. I have performed this operation three times, and all the patients have recovered. The first was a case of tubercular suppuration, and the patient derived immense relief from the operation; but a permanent fistula remained, and the other kidney becoming also affected, she eventually died of suppression of urine. The second was a case of one of the rarer forms of cystic disease in connexion with the kidney, the cyst was opened and drained antiseptically, and the patient is now in good health. The third is the case of M. D., the young woman upon whom I afterwards performed nephrectomy, and who has just gone home quite well. Those of you who were present at the nephrotomy in this case will remember that I made an incision in the right lumbar region, commencing at the centre of the last rib, and carried down somewhat obliquely to about the centre of the crest of the ilium, the outer border of the quadratus lumborum being thus exposed and forming a guide to the deeper parts of the incision. You will also remember how very free the hæmorrhage was from a number of small vessels, and how it interfered with a good view of the deeper parts of the wound, until it was restrained by pressure forceps. This patient was thin, but still the kidney was reached at some depth, and of course this would be enormously increased in a very stout person. I wish, then, to direct your attention to the facts that the kidney is readily reached in this situation, but that there is small hæmorrhage, which may be of moment in a very weak patient; and that the space for examination of the kidney is not very large. The organ is reached at the farthest point from the vessels, and it is impossible to thoroughly explore the whole course of the ureter.

The question in my case was: Is the suppuration due to calculus or tubercle? The answer was not given by the exploration I was able to make through the loin incision; there might have been a stone in the ureter beyond my reach. There were no tubercular growths as in my first case. Had I made my exploration through the abdomen by an operation to be immediately discussed, I should have been able, before cutting into the kidney, to satisfy myself whether the obstruction was in the ureter, and in this particular case should have recognised the enormously and irregularly enlarged and hardened ureter as an indication of tubercle, and should have at once proceeded to remove the kidney; as it was, I could not feel certain as to the cause of the suppuration, and determined to try the effect of free antiseptic drainage. The result was a partial improvement followed by relapse, and a month later I had to perform nephrectomy complicated by the presence of a putrid sinus in the loin. The hectic and exhausted condition of this patient before operation gives a very fair sample of what one will usually have to face in performing nephrotomy or nephrectomy for suppurating kidney.

In thus calling your attention to the disadvantages of the lumbar incision, I must remind you that in my second case it would have been absolutely impossible to complete the operation through that incision. Some operators have found it necessary to resect a portion of the last rib—a proceeding which must be admitted to add enormously to the risk of nephrectomy; one surgeon has suggested that the rib could be sufficiently pushed or drawn aside: but with either of these aids it would have been absolutely impossible to remove the enormous mass (four pounds seven ounces), especially in such a very stout patient. The only cases in the future in which I would use the lumbar incision are those in which there is little or no enlargement of the kidney, and strong evidence of the presence of stone. In short, I would restrict its use to the operation of nephro-lithotomy. The experiences of Beck, Butlin, Morris, Haward, and others abundantly prove that there is a great future for this operation, and that when the kidney substance which is cut through in reaching the stone is fairly healthy, there is nothing to fear from the immediate hæmorrhage, and but small risk of permanent urinary fistula. The abdominal methods would be quite unsuitable for this procedure, but experience alone can decide which method will be best when there is strong evidence of calculous pyelitis. My own impression is, that whenever the kidney has been much distended, it will be found that urinary fistula is likely to remain after the removal of the stone through the loin, and that it will become the rule to perform nephrectomy rather than nephro-lithotomy in such cases. In any case in which I had commenced with the loin incision, and then decided that it was better to perform nephrectomy, I should certainly complete the operation by that abdominal section which you have seen me use, and which I am now going to describe more in detail, merely using the previous loin wound for drainage, and of course suturing the greater part of it.

We will now consider nephrectomy by abdominal section. There are two incisions, both of which I have tried. The one is made in the median line, to the left of the umbilicus, and extends for about an equal distance above and below it. By this incision the general peritoneal cavity is fully exposed, and the kidney is most conveniently approached through the inner layer of the meso-colon; it can, of course, be approached through the outer layer, but as the operation proceeds the colon will be constantly in the way of the surgeon; whereas, if through the inner layer, it will, as enucleation proceeds, shrink into its natural position, and give no more trouble. When enucleating the right kidney, however, through the inner layer, one is exposed to much greater risk of hæmorrhage, as pointed out by Langenbuch at the Congress, because the vessels to the transverse colon pass chiefly through this inner layer. It might appear that the median incision would give one a more direct approach to the renal vessels; but this is not the case, or at least it is more than counterbalanced by the annoyance caused by the omentum and small intestines. The chief objection to the median incision is, however, the great exposure of the general cavity of the peritoneum and its contents.

The incision advocated by Langenbuch is made outside the rectus abdominis, and it is the one you have seen me use in both these successful cases. Admitting

the advantage claimed by Langenbuch, when the right kidney is in question, I go much farther, and claim for it such advantages over both the lumbar and median incisions that I believe it will, at no distant date, be the incision for nephrectomy, as completely as the median incision is the incision for ovariotomy and like operations. The following are its advantages:—An almost bloodless incision through the abdominal parietes and peritoneum; a complete command of both kidney and ureter for thorough examination and diagnosis; a comparatively bloodless and safe operation, should complete nephrectomy be decided upon. The fact that the peritoneal cavity is opened is of little moment, for there is no general exposure of its contents, and with the most ordinary care no possibility of any blood or foreign matter passing among the intestines; it is, in short, quite possible to make it practically an extra-peritoneal operation by having the inner edge of the parietal peritoneum and the inner edge of the incision through the meso-colon held together or temporarily secured by a few sutures. The renal vessels can be reached and secured with ease, by merely pushing the fingers through the cellular tissue between the peritoneum and kidney, and this can be done before the kidney is enucleated, and the most important part of the operation is thus performed with comparatively trifling hæmorrhage. Of course, the amount of difficulty, both in reaching the vessels and enucleating the kidney, will vary much according to the amount of adhesion between the peritoneum and capsule, and the kidney and capsule, respectively; but whether this be great or small, I am certain that it is both easier and safer to perform the enucleation with plenty of space, and distinctly seeing all one does, than through a deep and obscure opening like the loin incision. If there is much adhesion the peritoneum is sure to be torn and opened in many places, and there is much less risk when this is done openly and with proper sponging, and with the possibility of effectually closing the openings made.

Of course, all I say of these operations is said with the full understanding that they are to be performed with the strictest antiseptic precautions; and my recent experience shows that even with putrid pus in the kidney, and with a putrid loin sinus, the operation can still be made aseptic by the free use of tincture of iodine, and with great care in the final steps of the enucleation of the kidney.

I have now to mention a proceeding which I believe I have been the first to introduce, and which I consider to be of the greatest consequence to the safety of the patient and to the aseptic performance of the operation. I refer to the fixing of the bladder end of the ureter outside the abdominal incision, so that the septic material it is certain to contain is not left deep in the recesses of the wound. I tie it as firmly as possible with strong silk, and cut it off so as to leave only just enough stump to pass a pin through and keep it from slipping into the wound. I clean this stump well with iodine, and pack it round with a little cotton squeezed out of tincture of iodine. By this method I have been able, in both the cases you have seen, to avoid putrefaction in the early stages of the case, i.e., until the peritoneum is well sealed. I think the question of drainage in these operations must be decided at the time for each individual case. Whenever there is a loin opening, as in my first case, I should certainly use it, passing an india-rubber tube right through from the abdominal incision (as I did in that case), so that the wound could be at once flushed and washed out if any septic symptoms appeared. In any case in which I felt sure of asepsis, I should not drain, as I am sure the peritoneal surfaces about the wound would rapidly remove (absorb) fluid effused, as was the case in my little girl, and in the last case you have seen.

To sum up, then, I would recommend that the lumbar incision be only used for cases in which there is strong suspicion that a calculus is present, and that the operation will end in nephro-lithotomy; and I should be disposed, in any case in which I had commenced by the lumbar incision, and then found it necessary to complete the nephrectomy, to do so by Langenbuch's incision, utilising a portion of the already made lumbar incision for drainage, and closing the remainder. I would in all other cases, such as neoplasm of kidney, hydronephrosis, pyonephrosis, and floating kidney, operate by abdominal section, making the incision along the outer border of the rectus abdominis instead of in the median line.

ORIGINAL COMMUNICATIONS.

CASE OF

HERPES ZOSTER AFFECTING LEFT ARM
IN AN ELDERLY PERSON:SEVERE NEURALGIC PAIN AND PARALYSIS—BENEFIT
FROM GALVANISM.By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

L. L., aged sixty-four, seen August 28, 1872, a solicitor, of quiet, calm temperament. He was attacked by herpes zoster in the beginning of April, the left arm being the part affected, the eruption extending up from the hand to the posterior fold of the axilla. The eruption was not at first attended with a notable amount of pain; after it got better the neuralgia came on, and continues still. There are no cicatrices on the arm worth mention. The skin is highly hyperæsthetic in the tract formerly occupied by the eruption. The suffering has been extreme; if anything as light as a feather fell on his arm it caused intolerable pain; and while taking a railway journey the movement of his clothes over his arm pained him exceedingly. The whole arm is considerably wasted, the pectoralis major very much so, and its atrophy has left a large hollow under the left clavicle. He grasps very feebly indeed with the left hand, which he keeps mostly in a sling. He cannot dress himself without a good deal of help. The left hand is devoid of wrinkles compared to the right. General health good. Comes of a gouty family; had gout himself while the herpes was present. No family history of nerve-disorder. I applied the continuous current from a Stöhrer's battery to the left arm, and ordered him *sodæ hypophosphitis* gr. v. ter die, and cod oil. The first application gave him decided relief, and the dose was repeated on alternate days.

My note on September 9 is that he is improving. Has very little dysæsthesia now, most about the shoulders; gains power in the arm; can bend his elbow with a good deal of force, and can just flex the fingers sufficiently to touch the thenar eminence. He has not been able to use a fork for three months, but thinks he could now. No response to faradisation or interrupted galvanisation in biceps, very little in triceps or in the flexor and extensor muscles of forearm; the only part which acts a little is the inner portion of the flexor digitorum, moving the two inner fingers. To take *Dusart's syrup* ʒj., *strychniæ* gr. $\frac{1}{24}$ ter die.

September 14.—Urine specific gravity 1028, clear, not albuminous; quantity about a pint and a half in twenty-four hours. Left leg is distinctly larger than right; measures one inch and a quarter more in circumference; the limb feels rather clumsy, and pits a little on firm pressure. Veins not notably distended, except some small ones.

18th.—The inner muscles of forearm contract well with a strong faradic current; the outer two-thirds do not respond at all. The same is the case during voluntary action: the inner muscle bundles are felt contracting; the outer remain inert. Can flex the fingers more, but the grasp is still very feeble. The arm can be flexed powerfully at the elbow, though the biceps and brachialis anticus do not respond to faradisation or interrupted galvanism. He can use a fork now.

October 10.—The muscles on anterior aspect of forearm act fairly well now with faradic current, and so do the muscles on the posterior aspect. The biceps and brachialis anticus act well when the sponge is applied to a spot about the middle and outer part of the arm, but when it is applied to the inner and lower parts no contraction ensues. The deltoid acts well in its anterior half, not so well in its posterior. The triceps is very inert; gives only a little weak twitching. Left arm and forearm are both about an inch less in circumference than the corresponding parts of the right. He began syrup of hypophosphite of iron and quinine on 8th. Until to-day the continuous current has been applied to each group of muscles; I now place the positive pole over the cervical spines, and the negative over the several groups of muscles.

17th.—Slow improvement. Until last fourteen days has had a considerable amount of desquamation every morning

from his hand. Repeat *sodæ hypophosph.* ʒj. ad ʒviij., *capiat* ʒj. ter die.

19th.—States that before the attack of shingles he used to find that mental exertion brought on pain round the waist; the same symptom has recurred lately.

28th.—Can button his brace behind him with his left hand. *Phosphori* gr. $\frac{1}{30}$ ter die.

November 21.—Has not been improving lately; injections of strychnia up to gr. $\frac{1}{25}$ have been made into the triceps or biceps, but without any advantage.

23rd.—Much pain in arm and waist yesterday; is not so well as he was three weeks ago. Has some indications of threatening gouty disorder; urine is thick with lithates. *Pot. iod.* gr. ij., *lithiæ citratis* gr. x., *pot. citrat.* gr. xxx., *aq.* ʒj., ter die.

December 7.—Has begun Carlsbad water—taken each morning. Gets pain about arm every now and then, chiefly about shoulder. *Liq. pot. arsenit.* ℥ij. ter die.

February 14, 1873.—In much the same state. Left arm and forearm are still less than the right. A good deal of pain or uneasiness in left arm after 6 p.m. Can dress himself well enough.

March 8.—Has pretty good grasping power in the left hand, and can perform pretty well any movement, but finds that moving the fingers, as in opening and closing the hand, causes pain, extending a good way up the arm—in fact, to the shoulder. Is taking only a little *ol. morrh.*; *tinct. actææ racemosæ* ʒj. ter die.

April 5.—Has been to Brighton and improved in health, but the stings of pain continue to bother him a good deal, shooting up from the hand and wrist to the shoulder and upper chest-front. He can use his arm well.

15th.—Same. Galvanism does nothing for him now. Much walking or gestation in a carriage or railway causes increased distress in left arm and waist. On account of this suffering he cannot dine out or spend an evening with friends. Injected into left arm *liq. morph. bimecon.* ℥x.; pulse after this was for some time very irregular and unequal, but it had often been so before.

25th.—After having sparks taken from his shoulder, cervical spine, and arm on the 21st, he felt decidedly better for two days, but for some reason the procedure was not repeated.

July 15.—Has been using sulphur-fume baths with decided advantage lately. Three days ago he felt very well, but then a rainstorm came on and he got a relapse. Has to take chloral to get sleep at night. After this I lost sight of him.

This case affords a good example of the effects which may be produced by herpes zoster in advanced life. The disorder is indeed quite a different affair in the aged and in the young. In the latter, after a week or so of more or less soreness and pain the trouble is over; in the former, the eruptive period, which may not be attended with very much suffering, is no sooner passed by than the neuralgia commences, and obstinately persists while life lasts. I have seen one of the calmest and most patient natures terribly tried by the long torture. We know not the cause of this remarkable difference, but it is probable that some damage is inflicted by the morbid process on sensory-nerve structures, which in the aged cannot be repaired. Perhaps the ganglia on the posterior roots, which are the seat of demonstrable lesions in zona, undergo some sclerosive or other change which affects the nerve-filaments traversing them. Perhaps, also, the cord itself participates in the change, as the sting-like quality of the pain rather suggests. The motor paralysis was much less persistent than the sensory, and was indeed well-nigh quite removed by the treatment. It was at first very considerable, and was associated with loss of faradic and galvanic contractility, as well as with wasting. The question whether it depended on organic lesion or not is hard to decide. Its non-persistency makes the latter view, to my thinking, the more probable. Functional motor paralysis is not rarely associated with neuralgic pain. Zona is so rare an attendant on gout that I cannot think their association in this instance was anything more than a coincidence. Certainly, the persistent neuralgia was not gouty. Though the result of treatment came far short of what was desired, yet the good effects of galvanism were sufficiently striking. The pain and hyperæsthesia were considerably and rapidly lessened, and the motor power almost restored. Though medicines were given at the same time, I do not

Remarks.—I was unable to obtain a satisfactory history of the hydrocele, for the patient seemed to attach but little importance to the scrotal swelling. It is remarkable, however, that this was absolutely cured by the incision made in the tunica vaginalis. The reason why union in the wound was so retarded is not very clear, for there was nothing in the patient's general condition which would account for this. I can but suggest that the fluid from the scrotum may have passed along the wound by means of the drainage-tube and set up an unhealthy action. Out of the many hernias that I have seen, and the few that I have as yet operated upon, this is the first coming under notice where the bowel has been strangulated at the deep end of the inguinal canal. Lastly, although the association of hernia with hydrocele is of fairly common occurrence, yet this case cannot be put in the same category, inasmuch as the bowel never reached the scrotum, although it would have done so ultimately had not strangulation called for surgical interference.

It will be sufficient to add that although the tongue, appetite, temperature, pulse, bowels, etc., were all in satisfactory state, yet the wound healed slowly by granulation from the very bottom, and was not sound for about six weeks, when a truss was fitted over the inguinal canal, and the patient returned home perfectly well. He came to the Infirmary to show himself in September following, and there was no trace of rupture or hydrocele returning, and the truss was worn without any inconvenience.

A FAVOURITE means of promoting objects of public utility has been by the donation of sums of money in prizes for essays devoted to the furtherance of the object which the donor has at heart. The advancement of medical science has been among the benefits which persons anxious for the public weal have tried to help forward in this way. A prize has lately been set up for competition in the hope of discovering a remedy for hydrophobia; and another one has still more recently been offered to the person who should find out a radical cure for cancer: not to mention older bequests—the Astley Cooper, Jacksonian, Fothergillian, etc.—prizes the regularly recurring advertisements of which make them familiar to the profession in this country; besides the very numerous ones disposed of by the French Academy. The prize which, as we have said, is the most recent, was announced somewhere about a year ago, and was to be given to the discoverer of a radical cure for cancer. No radical cure for cancer, however, has been discovered; and the prize is now again offered for competition—this time, however, with the more modest object of getting a good

essay on the line of research likely to result in the discovery of a cancer-cure. *À propos* of this, we purpose making a few remarks on the conditions under which these prize essays may be rationally expected to bear fruit of a useful and practical kind.

First, we would say, that if an essay of any worth at all is to be got, the subject must be narrowly limited. If the writer is to be required to range over the whole of a wide subject, he cannot go deeply into any one part of it. Confine him to a single simple point—let his task be to thoroughly exhaust that one point, to collect evidence of every kind, from every source, bearing on that point—and there will be good reason to hope that, even if no directly practical gain should accrue, the boundaries of knowledge will be enlarged.

Next, the problem proposed should be a *soluble* one. It should not be one which can only be solved by accident,—by a lucky guess,—but one on which, by patience, industry, and skill, light is sure to be thrown, even if the final solution be not attained. The cure of cholera, for instance (a result for which the great Bréant Prize has been in vain offered for many years), is an absurd subject, because no one has the least idea in what direction such a cure is to be looked for; experimentation, in the hope of finding such a thing, would be simply shooting arrows in the dark, in the hope of hitting some unknown mark. But such subjects as the morbid anatomy of a disease, its conditions of inoculability or production, and other similar questions which could be particularised, would have light thrown on them by any competent person who would give time and trouble to the task.

But the selection of a soluble problem and its due limitation require special knowledge of the subject to which that problem relates. This brings us to our next remark, viz., that it is impossible for one not understanding medicine to judge upon what subject a medical prize essay may be usefully invited. He can of course form an opinion as to the subject upon which knowledge is most wanted, and would be most useful; but he cannot in the least tell how such knowledge is to be attained, or what probability there is of its ever being reached.

The first thing, therefore, which should be done by any one who wishes to stimulate medical research by giving prizes for competition, should be to seek the advice of some one understanding the matter. The recent munificent donation of a prize for the discovery of a cure for cancer illustrates this. Either no essays at all, or none worth a prize, were sent in response to the first advertisement. Since then the donor has had skilled advice, and the result has been that a subject is announced upon which it is at least possible to write an essay.

The selection of adjudicators who shall be both impartial and competent is a matter of such obvious importance that we need say little about it. They should be impartial, not merely in the sense of being above showing favour to any particular person or institution, but in being able to fairly weigh and appreciate habits of thought and methods of work different from their own. That only those are competent to adjudicate who thoroughly understand the subject, might indeed go without saying. It is very difficult to get any single adjudicator who shall be both competent and impartial. Thorough knowledge of the subject implies a deep interest in it. It is scarcely possible to be deeply interested in any scientific question without forming a strong opinion as to what is true and what is not true in the current views about it, as to what is the right way to work at it and what the wrong. Such convictions would, in a matter like the adjudication of a prize essay, influence the judgment, all the more strongly because unconsciously, more especially in the mind of a judge feeling himself free from the corrupting influence of any

purely personal feeling. This unconscious partiality is best counteracted by confiding the decision to more than one person. An adjudication in which several competent persons agree is likely to be free from bias, because the individual crotchets of each judge will be overruled by his colleagues, and it will be therefore likely to give general satisfaction. Here, again, we note with satisfaction that the skilled adviser whose aid the donor of the American prize has sought has corrected the mistake which the giver would have made. The donor originally left the decision to Dr. Collins Warren; but that gentleman, with much wisdom, has seen the propriety of associating others with himself for that purpose.

There is yet another point upon which our remarks may take a more concrete form. It is this: that it is very undesirable that therapeutic questions should be the subject of competitions such as these. First, on account of their difficulty. Morbid anatomy questions are the simplest with which we have to do, for there we have the diseased structure in our hands, and open to our methods of investigation. Yet these questions are not considered easy. When we come to questions of diagnosis, the difficulty is far greater; for, added to the uncertainties of pathology, we have those of diagnosis. And in therapeutic questions we have added to all these difficulties the still greater one of determining whether our treatment has at all modified the course of the disease presumed to be present. Secondly, on account of the temptations which such questions offer to quacks, and the opportunities therein afforded them to give play to their quackish natures. People will reward those who cure them, not those who teach how posterity is to be cured; therefore the quack pretends to cure, and he will seize any opportunity by which he may tell the world that he can do so. He will assert that he can cure, and he will support his general assertion to this effect by particular assertions to any number. He can and will draw cheques for ever on the bank of falsehood, and pay them, when dishonoured, by further drafts to larger amounts on the same quarter. Now, beside the fact that the more simple and exact branches of medicine bring in a less speedy reward, and are therefore less tempting to the quack, there is this, that assertions in them can be quickly tested. A man cannot tell lies about an alleged anatomical discovery, for he can be at once challenged to demonstrate it. But a therapeutic assertion can only be put to the proof by long experience and careful observation, and hence the impunity with which the quack disseminates his falsehoods. And even among those who are not quacks, who wish to say only what is true, it is the man of limited knowledge and small intellectual power, who submits apparent cures to less rigorous investigation, is more liable to deceive himself, and is more easily convinced; and such a man therefore more readily imagines that he has made a valuable discovery. Men of full knowledge and sound judgment are slow and hard of belief, and this habit of mind is not favourable to the discovery of cures to order.

Prize essays may produce and have produced a number of small pieces of good work in limited fields; but the larger problems, which the most accurate observers, the best reasoners, the most devoted workers, have left unsolved after a life given to research, are not likely to be settled in a competition of essays.

DR. KOCH ON "PURE CULTURE" OF ORGANISMS. A WORK, (a) corresponding to the appendices to the Reports of the Medical Officer of our Local Government Board, has

(a) Mittheilungen aus dem Kaiserlichen Gesundheitsamte. Herausg. von Dr. Struëck. 11ter Band. Berlin, 1881. (Communications from the Imperial Board of Health of Germany.)

lately been published by the Imperial Board of Health of Germany, and is worth consideration. It contains fourteen contributions by Drs. Koch, Gaffky, Löffler, Wolffhügel, etc., giving accounts of original researches conducted by them at the instigation of the Imperial Board of Health, and for the most part in its laboratory. Four of these communications deal with the questions of micro- and pathogenic organisms, one with that of subsequent immunity from infectious diseases, six are more or less connected with the theory and practice of disinfection, and the remaining three treat respectively of water analysis, the control of the milk trade, and the penetration of heat in the cooking of meat.

At present we propose to notice only the first paper, by Dr. Koch, which is of special interest at this time, as containing, among much collateral matter, an account of his method of "pure culture," which, in his opinion, alone gives satisfactory results, and excludes the countless sources of error incident to the methods of cultivation in liquid media hitherto employed.

Dr. Koch begins by pointing out that it is not enough that we have shown by the microscope the mere presence, however constant, of bacteria or similar organisms in the tissues in any disease: we must decide whether they are truly pathogenic, whether they are infective, by what means they gain access to the animal body, and under what form and conditions they exist out of it. In some diseases, as cholera, we have already learnt by experience the mode of entry, although we may not as yet have demonstrated the existence of specific germs. In the case of bacteria found in the mucous surfaces and cavities to which air has access, the difficulties are almost insuperable; and we must confine our attention to such as are present in the tissues, lymphatic glands, and fluids of the body. To Ehrlich we owe the important discovery that by means of certain colouring reagents we may demonstrate the existence of appreciable differences among cellular elements, as those of the blood, which we had hitherto believed to be identical; and it is not improbable that many pathogenic agents may exist as amœboid cells, indistinguishable otherwise from normal leucocytes, and that the want of success that has attended the search for bacteria in some diseases may thus be explained. For the detection of bacteria in the tissues we must have resort to various processes of clearing and staining which can only be learnt by experience; and for the subsequent cultivation of these no reliance can be placed on any method that does not provide, as far as possible, for the exclusion of foreign germs, and for the isolation of those which are the objects of our study from those which it is impossible absolutely to exclude. Such separation cannot be effected in liquid media, and we must have recourse to solids, in which each germ reproduces itself at the point where it was originally deposited. This is the principle of the methods to which the name of pure cultivation (*rein Cultur*) has been given. For recording the course and results of our investigations we must at every stage take photographs of every organism of whose pathogenic nature there is any suspicion. But since actual experiments on healthy animals furnish the only positive and crucial test, albeit often extremely difficult, we must not only select animals of the same or of nearly allied species, as the monkey in place of man, but also of the most diverse kinds, as the rabbit and the ox; and here we meet with some unexpected results—*e.g.*, the septiciæmia of the rabbit is fatal to rabbits and to the domestic mouse, but has no effect on the field mouse, though the latter is susceptible to the bacteria associated with gangrene in the rabbit. The mode of inoculation is also important (whether, for example, it is subcutaneous or intravenous), and the disinfection of the syringes or other instruments

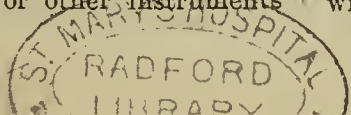
employed. The results of inhalation have not been found satisfactory.

For the examination of animal fluids it is usually sufficient to spread on a glass slide a thin film of the fluid, and to dry it spontaneously or at a temperature not exceeding 125° C., and subsequently to stain it, mostly by a solution of aniline brown in glycerine; the staining being aided by previous exposure of the film to the action of absolute alcohol for a period varying from a few days to several weeks.

For pure cultivation Dr. Koch formerly used slices of boiled potato, but he has abandoned these in favour of a mixture of the cultivating fluid with 2 to 3 per cent. of gelatine, which gives a solid but perfectly transparent mass. Of all that he has employed, the most successful appears to be a mixture of blood-serum with gelatine—it is not impaired by boiling. A drop of the liquid is laid by means of a disinfected pipette on each of a number of glass slides previously heated to 150° C., and they are covered with bells of moistened tissue-paper. The inoculation is performed by a needle, which has been first made red-hot to destroy any adherent germs: with it a minute quantity of the bacteria-containing matter is implanted in the centre of the gelatine, and the preparations, protected by shades, are kept at a temperature between 20° and 25° C. It is highly improbable that in any considerable number of specimens foreign germs should alight on the very spot at which the inoculation had been effected; and in every other, though the individual microbes may be indistinguishable, the colonies are easily recognised. Dr. Koch strongly deprecates the neglect of photography and the use of liquid media, and confesses himself to be very sceptical as to the discovery and cultivation of bacteria as well as the transformations claimed to have been effected by many enthusiastic followers of the school of Pasteur. So long as the same medium is used and the same conditions are maintained, he finds that bacteria preserve an identity justifying one in regarding them as distinct species.

For the examination of air Dr. Koch does not employ aspirators or aëroscopes, but a number of glass cylinders 18 cms. by 6 cms. (7½ in. by 2½ in.). At the bottom of each cylinder lies a shallow glass dish about 1 cm. (½ in.) deep for the reception of the gelatine, the dish resting on the bent end of a strip of tinfoil, by which it can be lifted when required. The cylinders having been cleaned, and closed by a plug of sterilised cotton-wool, are exposed for two hours to a temperature of 150 C., and when cool the dish is filled to half its depth with sterilised gelatine, and the cylinder quickly closed by the plug. On reaching the place of observation the plug is removed, and the vessels left open for six, twelve, or twenty-four hours, again closed and brought home. Kept at a temperature of 20° to 25° C., germination may usually be seen in twenty-four to thirty hours, and after two or three days the colonies may be recognised. Should any germs from the air of the laboratory gain access to the liquid gelatine in the act of charging the dish, they will sink downwards, and thus be distinguishable from those which, after its coagulation, are deposited on its surface from the air to be examined. For ordinary use the best gelatine is the perfectly colourless one made with infusion of wheat; but for the cultivation of disease-germs from the air of hospital wards, blood-serum gelatine or infusion of flesh is to be preferred.

Water which it is desired to examine may be mixed with the gelatine of wheat-infusion, and the colonies allowed to pervade its substance, or better, applied to the surface of the coagulated gelatine. Sometimes very few organisms appear, at other times they are so dense as to need dilution with pure water before being submitted to microscopical



examination. The treatment of earth and dust is conducted on the same principles, but Dr. Koch remarks that only the spores of fungi and bacilli can survive long desiccation.

The photographs appended to the Report are next explained. Of these, ten are illustrative of human erysipelas, micrococci alone without rods, met with exclusively in the outer zone of the inflammation in the lymphatics and cellular tissue. Four show micrococci from the vessels of the heart in ulcerative endocarditis; three those in the renal and hepatic capillaries in small-pox; six exhibit spirochætae sent from India by Dr. Carter, and from a monkey inoculated thereby with relapsing fever at Berlin. Malignant pustule in man and in cattle is illustrated by fifteen photographs. Others are taken from sheep-pox, septicæmia in the mouse, and malignant œdema; one (not characteristic) from pneumonia; and eight exhibit the bacteria of enteric fever, first described by Klebs and Eberth. Dr. Koch's results agree best with those of the latter observer, but he considers their relation to the disease as needing further investigation.

THE LUNACY LAWS.

MR. STANLEY LEIGHTON'S constituents of North Shropshire would do well to present him with a copy of some standard work on political economy, the study of which might perhaps prevent him from again troubling the House of Commons with so feeble and indefensible a resolution as that respecting the Lunacy Laws, which he brought under its notice on April 25. "All lunatics," so ran the resolution, "ought to be committed to the care of the State": and the declaration at first conjures up a vision of a solemn ceremonial and dedication, the House of Commons standing with upturned eyes, while Mr. Speaker committed the entire insane population to the care of the State or some other abstraction. In the present state of the Oaths question, however, it is impossible to suppose that Mr. Leighton had any invitation of this kind in view, and we are compelled to fall back, therefore, upon some other interpretation of his words; but still ample room is allowed for fancy and speculation, for throughout Mr. Leighton's long and impassioned harangue it is impossible to discover what definite meaning he attached to his own terms, while it is quite clear that subsequent speakers received them in very different senses. As far as we can make out, however, Mr. Leighton's idea is that all lunatics will be committed to the care of the State whenever private asylums are bought up by Government or some local authority empowered by Parliament to do so; and this is the kind of scheme that, following the slipshod example of the member for Swansea, he advocates with an entire disregard of all sound principles of political economy. For why, it may be asked, as indeed Mr. Dodson asked in the House of Commons, should the country undertake the care or maintenance of affluent lunatics any more than of affluent persons when labouring under infectious diseases? Why are the poor to be taxed for the benefit of the rich—for that is what it would really come to—in a matter in which the rich are willing and able to help themselves? Insanity is a disease like consumption or cancer, from which all classes of the community are liable to suffer, and, like them, it involves incapacity for industrial pursuits, and a protracted and expensive course of treatment. But it has never been proposed that any part of the cost of treatment in cases of consumption or cancer occurring in the well-to-do classes should be drawn from the public purse, or that homes or hospitals should be provided for them out of the rates; and why should it be suggested that a considerable proportion of the cost of treatment should be contributed by the public in the case of well-to-do lunatics, and

that asylums should be provided for them at the charge of the rates? It has been calculated in the case of pauper lunatics that the interest on the money expended on the land, buildings, and furniture of the asylums in which they are accommodated amounts to one-fourth of the sum charged for their maintenance; and in the case of private patients, where very superior accommodation would be requisite, it would certainly not be less. So that, in the event of private asylums becoming the property of the State, a man of fortune able to pay £1000 a year for board would, on becoming insane, be presented by a generous country with £250 per annum as long as he might continue in that condition. No provision is made in Mr. Dillwyn's Bill, which Mr. Leighton evidently adopts and approves, for the repayment of the original outlay for the purchase of existing asylums or the erection of new ones, and thus the ratepayers would practically have to pay the rents of all the wealthy lunatics in the country, merely to satisfy the nonsensical theory that it is inexpedient that anyone should make a profit out of disease—a theory that, rigidly carried out, would cut down a number of flourishing industries besides that of private lunatic asylum proprietors. It may be said that a clumsy provision introduced into the Bill, to the effect that when a surplus is found to exist in any district, after the payment of all expenses connected with the new asylums, it shall be made use of for lessening the rates levied for the maintenance of pauper lunatics chargeable to the district, would insure that ultimately the rates would be recouped for the original outlay on the new asylums; but not much acquaintance with the working of public institutions is requisite to perceive that this would not be the practical operation of the provision. Repairs and additions to the asylums are to be paid before any surplus accrues, and the officers of the asylums would take care that repairs and additions should not be stinted when any surplus that might be earned merely went to the relief of the poor-rate. Besides, is it not clear that any surplus earned in the new asylums would be applied in reduction of the charges for the maintenance of their own inmates? No rates of board in the new asylums are fixed in the Bill; these are left to be determined by the visiting justices; and it is certain that they would be arranged not with a view to a surplus, but with a view to extending the benefits of the institution as widely as possible. The profits now earned in private asylums and registered hospitals would disappear under the new system, a balance between receipts and expenditure would be alone aimed at, and there would never be a surplus to apply to the reduction of the pauper lunatic rates, and so to the repayment in a sense of the original outlay on the asylums. Even if the new asylums simply took the place of existing private asylums this would be the case, but as in all probability they would have a greatly enlarged rôle to fill, the prospect of a surplus would be still more problematical. There are in pauper asylums, as was mentioned several times in the debate on the 25th ult., a great number of lunatics who are paupers only in name, their maintenance being paid through the guardians out of their own funds or by their relations. They are sent to the county or borough asylum because their means do not enable them to meet the lowest charges for board in private asylums; and they often feel acutely their association with genuine paupers and criminals. The humiliation of being regarded as paupers often retards their recovery, and their relations and friends are also greatly pained by their position. Now, supposing that Mr. Dillwyn's new asylums were called into existence, would it be possible to avoid providing accommodation in them for lunatics of this class? They are able and ready to pay about ten or twelve shillings a week, and it cannot be contended that they should be left to herd with paupers, while sumptuous apart-

ments were prepared at the public charge for opulent and aristocratic lunatics. But the reception of lunatics of this class into the new asylums would effectually prevent the accumulation of any surplus to be paid towards the maintenance of paupers. The average cost of lunatics in registered lunatic hospitals, which are exactly analogous to what the new asylums would be, is about thirty shillings a week, and although the lower middle-class patients would be maintained for a less sum than this, it is certain that they would cost more than they paid, and that, as their number would be great, they would eat up any profit derived from the high-class patients. Thus the original outlay on the new asylums would never be repaid to the rates, and in view of this it may be very confidently predicted that neither Mr. Dillwyn's Bill, nor any other Bill embodying the principle contained in Mr. Leighton's silly resolution, will ever be accepted by the country. Political economy has been somewhat discredited of late, but the people are not yet ripe for such a violation of all sound economic principles as would be involved in building homes and hospitals for rich lunatics, nor in undertaking the care of them if that care entailed any calls upon the public purse.

And what, it may be asked, was the call for Mr. Leighton's resolution? What serious evils was it designed to remedy, or to point out with a view to future remedial measures? When State interference is demanded, good grounds for it should be shown, especially when from both political parties—both from Lord Salisbury and Mr. Dodson—warnings are heard that excessive and vexatious State interference in private affairs is one of the dangers of the age in which we live. Why should private asylums be taken over by the State? Mr. Leighton's terrific denunciations of these establishments must have led everyone to believe that he had a strong case against them; and astonishment must have been felt when it turned out, as Mr. Collins remarked, that he had plenty of strong language, but no facts. And yet this actually was so: Mr. Leighton had nothing to support the case which he submitted to the House, but vituperation and insinuation—notably the old insinuation that sane people are shut up in asylums and unduly detained there; an insinuation which was refuted by the Select Committee of 1877, of which Committee, if we mistake not, Mr. Leighton was a member. The labours of that Committee made it abundantly apparent that personal liberty is not endangered under the present system. After affording the amplest opportunities of complaint to all persons dissatisfied with the Lunacy Laws, and investigating with extraordinary patience the instances of alleged abuses under these laws which were brought to their notice, they could not point to one case in which a sane man or woman had been wrongfully shut up in an asylum or wrongfully detained there. Their report is a weak production and is couched in dubious phraseology, but the body of evidence which was adduced before them must convince anyone who dispassionately peruses it, that in spite of all that may be said about the facilities offered for incarceration in asylums, and about its being the interest of private asylum proprietors to keep their patients as long as possible, the checks and safeguards that are already in operation are effectual in preventing abuses, and that there is no necessity for the abolition of private asylums. All the witnesses whose evidence was entitled to weight on such a subject—Lord Shaftesbury, Mr. Wilkes, Dr. Bucknill, Mr. Spencer Perceval, Dr. Lockhart Robertson, Dr. Crichton Browne, Sir James Coxe—deprecated the notion of doing away with private asylums. Expressing a speculative preference for public hospitals for the insane, and looking forward to a remote future, in which perhaps lunatics of all classes may

be provided for in this way, they were careful to assert that private asylums are necessary and desirable at present, that there is a special work for them to do, and that they have been, and are, undergoing steady improvement. It was pointed out that the relations of lunatics are often averse to send them to a public institution, and if private asylums were no longer available for such cases they would frequently be kept at home and deprived of that early treatment which is so conducive to recovery, or boarded out illicitly in private houses without official supervision of any kind. The almost unanimous opinion of the well-informed witnesses was that private asylums should be left as they are, and that encouragement should be given for the establishment, by the charitable and philanthropic, of more asylums of the registered lunatic hospital class, into which lunatics of small means might be received, and suitably and skilfully treated. The creation of more asylums of this kind would, it was pointed out, lead to the gradual extinction of private asylums of the least prosperous and satisfactory description, without any call on the ratepayers, leaving those of a higher order to fulfil a very useful function. As Mr. Beresford Hope remarked, the public will have private asylums, and the important matter is to maintain proper inspection over them, and see that they are liberally and suitably conducted. That private asylums are, on the whole, well conducted at present, and are fairly well performing their duty, is proved by the reports of the Commissioners in Lunacy, and by the emphatic testimony of Mr. Gregory, Dr. Farquharson, Sir Trevor Lawrence, and other members of Parliament who took part in the debate on the 25th ult. Mr. Beresford Hope stated that the average period of detention of patients was less in private than in public asylums, and that the rate of recovery was higher in the former than in the latter class of institutions; and he passed a well-merited eulogium on some of the men who are engaged in private asylum work. The only instances which Mr. Leighton could bring forward of abuses in private asylums, were the most conclusive proofs of the efficiency of the present system of supervision of these establishments, for they were drawn from the published report of the Commissioners in Lunacy, and had been promptly dealt with and put an end to. Mr. Leighton can scarcely expect that abuses and irregularities will not occasionally arise in large establishments of any kind, and the utmost that he can demand in the case of asylums is, that they shall be speedily detected and set right; and to do this the existing official machinery seems to be fully adequate.

THE WEEK.

TOPICS OF THE DAY.

THE meeting of the Metropolitan Provident Medical Association was held at the Mansion House on the 26th ult., as previously announced in these columns. The Lord Mayor presided, and amongst those present were Mr. Stansfeld, M.P., Sir Charles Trevelyan, Mr. Alderman McArthur, M.P., Mr. Burdett-Coutts, Dr. Alfred Carpenter, Mr. Timothy Holmes, Mr. Ernest Hart, and Dr. Jabez Hogg. As we so recently explained the objects of the Association it is not necessary to recapitulate them, but it may be mentioned that eight dispensaries have already been opened under its auspices, viz., in Leicester-square, Lamb's Conduit-street, Croydon, Golborne-road, Camden-road, Goswell-road, Lupus-street, and Deptford, and it is stated that the number of new members enrolled at all of them is steadily increasing. The first resolution, moved by Mr. Stansfeld, M.P., was as follows:—"That in the opinion of this meeting the formation of self-supporting and self-governing provident dispensaries, in co-operation with hospitals, will conduce to beneficial relations

between the medical profession and the working-classes, by securing due attention to the medical needs of the latter on reasonably paying and non-pauperising terms, and by relieving the overcrowded out-patient departments of the hospitals." In speaking to the resolution, Mr. Stansfeld entered fully into the working of the Association, and submitted that when the scheme was carried into execution a great deal would have been done towards the promotion of that spirit of independence and self-help upon which the prosperity of the people depended. The present out-patient departments of the London hospitals, with their system of indiscriminate relief, were, he contended, not only a weight upon the institutions, but were positively injurious to the community, tending, as they did, to pauperise the people of the metropolis. Mr. Timothy Holmes, who seconded the resolution, spoke very much to the same effect; he wished it to be understood that the Association had no desire in any way to weaken the out-patient departments of the hospitals, but rather to support them. Mr. F. D. Mocatta moved as the second resolution, that the meeting pledged itself to support the Metropolitan Provident Medical Association in establishing provident dispensaries throughout the metropolis, on the self-governing and self-supporting principles, and invited donations to a "Provident Dispensaries Preliminary Expenses Fund." This was seconded by Dr. Alfred Carpenter, and supported by Sir Rutherford Alcock. Both resolutions were carried unanimously. We cannot help regretting that the weight and influence of a Mansion House meeting was obtained for the purpose of this Association. We think the Association is a mistake, and it may be a very mischievous one. It is our conviction that the working-men of the metropolis are very well able to get all the medical help they need, by paying for it directly or through clubs, or from hospitals and dispensaries. So far as we can understand Mr. Stansfeld, the Association requires, for success, the aid and patronage of the friendly societies, which are formed by the very best of the working-classes, *i.e.*, of artisans well able to pay for medical advice. The Association has not attracted support as a commercial undertaking, and now appeals to the benevolent and the working-men's friendly societies for support and encouragement.

It will be remembered that the Select Committee of the House of Commons, appointed to consider the Bill for the erection of a new fish market for the metropolis at Shadwell, recently resolved to pass the preamble. In consequence of this decision, the Court of Common Council of the City have held several meetings to consider the subject, and their report was last week delivered and read with closed doors; but the debate on it was held in public. From the different speeches it was gathered that the report of the Markets Committee recommended that the opposition of the Corporation—as the market authority for the whole metropolis—to this Bill should be continued in the House of Lords, although their opposition had failed to prevent its passing the Commons. It also recommended that in the event of the Bill being ultimately successful, the Corporation should abandon their proposal to use the newly erected market in Farringdon-road for the sale of fish, and should seek to obtain the introduction of clauses for compensation from the promoters of the Bill. After a debate of seven hours, the recommendation to continue the opposition to the Shadwell Market Bill was carried by a majority of one, thirty-nine voting for it, and thirty-eight against; and the proposal to abandon the Farringdon fish market and seek for compensatory clauses was lost by forty-three votes to thirty-six. Notices of motion to rescind both these decisions were given before the Court broke up.

A conference of persons interested in the establishment of

a new general hospital for the North of London was recently held at the Athenæum, Camden Town, Mr. Marshall Lang presiding. The Chairman, in opening the proceedings, referred to the great necessity which existed for hospital accommodation in that district, and remarked that it was a necessity which had long been felt. The district was one teeming with population. Mr. Henry Burdett read a paper upon "The Hospital Requirements of North London." The district in the North of London, he said, had a population of at least a million persons, and there was but one bed in the Great Northern Hospital for every 33,000 of the inhabitants. Professor Leone Levi moved—"That this meeting is fully convinced of the urgent need of increased hospital accommodation in the North of London, and pledges itself to use the utmost exertions in order to procure the same." Mr. Burdett-Coutts seconded the motion, which was unanimously agreed to. These gentlemen seem to forget, or never to have learned, that one of the gravest defects of our charity system in England is the multiplication of associations or institutions for similar objects, and consequently a squandering of power by division of interests, and a wanton increase of administrative expenses. The easiest, quickest, and least expensive method of increasing the hospital accommodation for the northern districts of London would surely be by the enlargement of the Great Northern Hospital—a fully organised charity which has been at work in the northern districts for several years, and the Managing Committee of which would be only too glad to increase threefold or fourfold their accommodation for in-patients, if the necessary funds can be supplied.

A deputation, including, amongst others, Colonel Greville Fennell, Mr. Selater-Booth, and Sir Baldwyn Leighton, recently waited upon the President of the Local Government Board, to ask the consent of the Government to the introduction of a number of amendments in the proposed Rivers' Conservancy and Floods Prevention Bill. Earl Percy, M.P., in introducing the deputation, said it was desired that the Rivers' Conservancy should have power to enforce the provisions of the Rivers' Pollution Act, as that power at present was generally vested in those most deeply interested. Mr. Willis Bond pointed out that they wished for the insertion of a clause by which the Conservancy Board would be bound to restore any fish-pass or other work constructed by a Board of Conservators that might be interfered with by their operations. In reply, Mr. Dodson said the Government were impressed with the importance of rendering the Bill as applicable as possible to the requirements of river supervision in different parts of the country. In regard to pollution, which was, perhaps, the most important question that had been brought forward, so far as the Government was concerned, they had no objection to the arrangement that a Conservancy Board should have the power to enforce the provisions of the Rivers' Pollution Act. A clause to this effect was in their original Bill as passed by the House of Lords and read a second time in the House of Commons, and it was only struck out in deference to the opinion of the Select Committee; in fact, if the Government could meet the wishes of the deputation without defeating the main objects of the Bill they would be very happy to do so.

Another large and important deputation waited upon the Lord President (Earl Spencer) and Mr. Mundella at the Privy Council Office last week, in order to urge the prayer of a memorial already presented in favour of Government assistance for the erection of a National Veterinary College. Among those present were Earl Fortescue, Viscount Down, Sir T. D. Acland, M.P., Colonel Kingscote, M.P., Dr. Cameron, M.P., Dr. Farquharson, M.P., and Professor Flower, President of the Zoological Society. Earl Spencer,

in replying to the deputation, expressed the pleasure which it had given him to receive such an influential and highly representative deputation. He fully recognised the great importance of veterinary science, having proof of it almost every day, and was anxious to promote the interests of the veterinary profession. He confessed that he thought they had some grounds for asking assistance, but there were many competitors for Government aid, and there was considerable difficulty in finding either room or money to assist such cases. He could not promise them success, nor commit the Government to granting the prayer of the memorial, but he would certainly lay the matter before his colleagues, and would heartily rejoice if he could in any way promote the interests of a profession which was of so much importance to the country.

The skill of the analyst is not always employed in adjusting the rope round the neck of criminals, as the following case will show:—Mr. George Thomas, the county coroner, recently held an inquiry at Carmarthen, as to the death of Mary Evans, aged thirty, wife of Thomas Evans, a carpenter, living at Waimwrydd, Newchurch. She died suddenly on March 16 last, and her medical attendant certified that water-brash was the cause of death. Subsequently, the coroner, hearing that her life had recently been insured for a considerable sum of money, ordered the body to be exhumed, and a post-mortem examination to be made. The Home Secretary appointed Dr. Stevenson and Dr. Stokes, of Guy's Hospital, to analyse the contents of deceased's stomach. At the close of the proceedings the coroner said the analysts were not present, but he had Dr. Stevenson's written report, which he would read for the benefit of those to whom suspicion attached. Dr. Stevenson stated that no poison, mineral or vegetable, had been discovered in the stomach or intestines. Dr. Stokes certified his concurrence in this report; and the jury returned a verdict of death from natural causes.

It is stated that the Select Committee of the House of Commons appointed to examine into the working of the Artisans' Dwellings Acts have agreed upon their report. This important document, which is the product of a great mass of evidence taken before most of the members of Parliament specially interested in improving and multiplying dwellings for the poor in the metropolis, will, it is anticipated, deal concisely and definitively with the questions at issue. Formally affirming the fact that it is absolutely necessary that slums should be removed, it will proceed to show how the work can be performed with greater promptitude and at less cost than heretofore. The recommendations of the Committee will probably, it is expected, take the shape of proposing reduced compensation, in future, for dwellings pronounced unfit for human habitation; the dispensing with the "provisional award"; and the abolition of the requirement for the re-erection of artisans' dwellings in provincial towns. As regards London, however, the recommendation that in future only accommodation for from one-half to two-thirds of the people ejected shall be demanded by law, may also be looked for.

At the recent Naval and Submarine Engineering Exhibition, held at the Agricultural Hall, Mr. John Furley, Honorary Director of Stores to the St. John Ambulance Association, exhibited a one-horse ambulance carriage for use in streets and country districts. This vehicle is capable of great adaptability, and can be utilised for one or two patients in a recumbent position, and three or four seated; or with four patients on stretchers, and two attendants seated. At the back and below the floor is a case of first-aid appliances, which can be supplemented at discretion. It has now been placed at St. John's Gate, Clerkenwell, and is at

the disposal of any medical man who may wish a case (not infectious) to be removed.

THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

At the meeting of the Royal College of Physicians, held on April 27, five gentlemen were elected to the Membership of the College, it having been reported that they had satisfied the Examiners for the Membership. Licences to practise physic were granted to twenty-seven gentlemen who had passed the required examinations. Lists of these Members and Licentiates will be found elsewhere in our columns. Special votes of thanks were given to Miss Johnstone, of Bath, for the gift of a complete series of *Notes and Queries*, from the commencement of publication; and to Arthur Evershed, Esq., for a collection of the beautiful etchings, forming Series 1 and 2 of "An Etcher's Rambles." An offer from Dr. Guy and Dr. Gayin Milroy to present to the College a medallion portrait of John Howard was gratefully accepted. The annual election of Fellows—the result of which we publish in another column—took place; and the old by-laws and regulations of the College were repealed.

ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

At the first meeting of the Executive Committee of this Association, subscriptions (as will be seen elsewhere) were announced to above £1000. Sub-committees were appointed to report on the most pressing hindrances in the way of medical researches, to report on the best ways of promoting such researches, and to prepare a list of papers for reprinting and distribution. It was also decided to invite the co-operation of members of the profession interested in the objects of the Association as corresponding members of Council in the principal towns.

THE ARMY MEDICAL DEPARTMENT.

THE close of the present week will witness the termination of the official career of Sir William Muir, K.C.B., as Director-General of the Army Medical Department. As has been now for some time announced, he will be succeeded in the important duties of that office by Dr. Thomas Crawford, who has been recently relieved from the post of Principal Medical Officer of Her Majesty's Troops in India to fill the higher position at Whitehall Yard. The long and meritorious careers of both these officers are too well known to require recapitulation at our hands; but we can scarcely permit Sir William Muir to retire to that rest which he has so justly earned, without a few brief remarks as to his administration during the period he has filled the responsible position of Director-General of his Department. Some time previous to his selection for this appointment it had been decided to carry out a radical change in the organisation of the department; and the unification scheme, which utterly abolished the regimental system, was placed in his hands for development. That it has worked so well and satisfactorily, though by no means universally popular, is in no small degree due to the efforts of Sir William to uphold the interests of the large body of officers over whom he presided. The lines of the last Royal Warrant for the Army Medical Department, which served to restore popularity to the Service in the minds of the profession, and re-establish a feeling of confidence in the War Office authorities which previous experience had rudely shaken, were also the outcome of his long and intimate acquaintance with the wants and grievances of his brother officers. Sir William Muir will leave the scene of his official duties with the happy consciousness that he has made few, if any, enemies, and that the universal feeling is one of regret at the loss of a courteous, able, and kind-hearted chief.

In the gentleman who succeeds him the Department may further congratulate itself upon having secured an officer in every way fitted to assume the direction of affairs: a long term of previous service at headquarters will have given him an intimate insight into the working of the Department; and his duties as Principal Medical Officer, both in Ireland and India, eminently qualify him to assume the chief administration at Whitehall Yard. We think we shall not be far wrong in asserting that the appointment of Dr. Thomas Crawford will be decidedly a popular one.

THE MURCHISON SCHOLARSHIP.

THE scholarship founded as a memorial of Dr. Charles Murchison was awarded for the first time last week. The examiners reported that fifteen candidates presented themselves, all of whom showed themselves good men; and they nominated Mr. Charles F. Coxwell, M.B., of St. Thomas's Hospital, as Murchison Scholar, and they "especially commended" Mr. Sidney H. C. Martin, of University Hospital.

THE METROPOLITAN ASYLUMS BOARD.

AT the last meeting of the managers of the Metropolitan Asylums Board, the fortnightly returns of the number of fever cases showed an increase of twenty-three cases as compared with the previous period. At the Stockwell and Homerton Hospitals alone there were no less than 300 fever patients. Mr. Hodges, chairman of the Homerton Committee, explained that there had been a great increase of fever in several schools; at the Southall School there had been between fifty and sixty cases, and outbreaks of scarlet fever had occurred at Forest Gate and Mitcham. His Committee had felt themselves bound to open the Homerton Small-pox Hospital for cases of fever. Sir E. H. Currie said the increase of fever was not in London proper, but had occurred in several schools at the places which had been named. These schools had made no provision for any epidemic outbreak, and Homerton Hospital was literally clogged with the children received from these establishments. Mr. Galsworthy, the chairman, observed that he had recently conferred with the Chairman of the Southall Schools upon the matter, and that gentlemen had expressed his great satisfaction at the course taken by the Homerton Hospital authorities. Had the children not been accommodated at Homerton, he had stated that he did not know what could have been done; some provision had been made at the school for such an outbreak of disease, but not sufficient to meet the exigencies of one of so grave a character as the present. Sir E. H. Currie thought the public ought to know that the Board had met a great public want which it had not originally been intended to fulfil. Dr. Bridges, of the Local Government Board, said that the schools in question were not within the metropolitan district, and should therefore have provided a special boundary for their own cases of infectious disease; such a provision had actually been made in the comparatively poor parish of Bethnal Green. It was agreed that the attention of the Local Government Board should be called to the fact that so large a number of children had been sent to the hospitals of the Board. The total number of small-pox cases for the past fortnight showed a decrease of eight as compared with the return for the previous period. Sir E. H. Currie called attention to the fact that the Stockwell Hospital patients cost only 1s. 1d. per day, whilst at Homerton the charge was 2s. 4d. Mr. Hodges explained that the increased cost of the patients at the latter place was due to the large amount of clothing which had to be provided. On the motion of the Chairman, this matter was ordered to be referred to the Homerton Committee for full explanation.

NEW FELLOWS OF THE ROYAL COLLEGE OF PHYSICIANS.

THE following Members of the Royal College of Physicians of London were last week elected Fellows of the College, having been nominated for that honour by the Council:—Thomas Robinson Glynn, M.D. Lond., of Liverpool; Robert Leamon Bowles, M.D. Brussels, of Folkestone; Daniel John Leech, M.D. Lond., of Manchester; Francis Henry Champneys, M.B. Oxon., of Great Cumberland-place; James Ross, M.D. Aber., of Manchester; and James Matthews Duncan, M.D. Aber., of Brook-street. The list is an unusually short one, and presents some noteworthy features. It contains an unusually large proportion of provincial physicians; the old English universities have only one graduate on it; and it includes only one of the junior members of the College in practice in London. We are very glad to see such a recognition of the claims of the provincial Members of the College for the distinction of its fellowship, and the selection made from among them on this occasion will give general satisfaction. This character of the list is a natural result of the broadening and widening of the College that has been gradually effected during the past twenty years; as is also the very remarkable and still increasing diminution in the number of Oxford and Cambridge men on the roll of Members and Fellows, as compared with the graduates of other universities. Both the metropolitan physicians on the fresh list of Fellows, are obstetricians. Dr. Matthews Duncan was of course elected to the Fellowship as soon as it was legally possible; and the other obstetric physician is unquestionably worthy of the distinction conferred upon him; but it does appear remarkable that no other man among the younger metropolitan Members of the College should have been deemed by the Council worthy of nomination for this coveted honour at the same time; and very strange to see a batch of new Fellows of the Royal College of Physicians of London that does not contain a single general physician practising in London.

THE SCHOOL OF PHYSIC IN IRELAND.

PROFESSOR WILLIAM MOORE, M.D. Univ. Dub., has intimated to the King and Queen's College of Physicians that it is not his intention to offer himself for re-election to the Chair of King's Professor of Medicine in the School of Physic in Ireland; consequently the Fellows of the College of Physicians will be called upon to elect a Professor to this Chair, as well as a King's Professor of Midwifery, at the meeting of the College on the first Friday in July next. The King's Professors are required, by the terms of the "School of Physic" Act, to discharge clinical duties in Sir Patrick Dun's Hospital, Dublin.

THE HEALTH OF THE GLOUCESTERSHIRE COMBINED SANITARY DISTRICT FOR 1880.

THE eighth annual report of Dr. Francis T. Bond, the Medical Officer of Health for the Gloucestershire Combined Sanitary District, for the year 1880, like those from all parts of England, bears testimony to the encouraging fact that sanitary enactments, and careful and intelligent supervision, are slowly, but surely, beginning to exercise a beneficial influence on the health of the people. As some proof of this, in the case of the Combined Gloucestershire District, it is only necessary to quote the mortality from the zymotic group of diseases for the past few years; this was—in 1874, 301; in 1875, 271; in 1876, 298; in 1877, 273; in 1878, 234; in 1879, 183; and in 1880, 210. The year 1879, it will be remembered, was an exceptionally healthy one, on account of the excessive rainfall which extended over nearly the whole twelve months, and Dr. Bond remarks that he was quite prepared to find that the low figures of

that year had not been maintained. The most notable cause of the increase in the zymotic rate for 1880 was, he adds, the prevalence of diarrhoea during a portion of the year, the mortality from which was 64, as against 30 in 1879. This disease, Dr. Bond observes, is just the one of the zymotic group which is least amenable to sanitary regulations, because it is more dependent than any of the others upon various and accidental conditions upon which the action of sanitary authorities can have but little effect; indeed, a considerable number of deaths that are registered under the head of diarrhoea are not, he thinks, of a zymotic character at all, but merely cases in which it appears as an intercurrent element in the course of some chronic disease. Dr. Bond laments the supineness of sanitary authorities in the direction of providing hospitals for the isolation of infectious diseases; in only one of the sub-districts into which his extensive charge is divided—the Cirencester Urban District—has one of these necessary buildings been established, and its utility has been so marked that he is at a loss to understand how other authorities can wilfully shut their eyes to the importance of possessing a means of so readily grappling with outbreaks of highly contagious sickness.

THE MEDICAL SOCIETY OF LONDON.

THE 109th session of this Society was brought to a close by a *conversazione* on Monday evening last, on which occasion also Dr. Symes Thompson delivered the annual oration. The orator chose for his subject Medley's picture (which hangs over the President's chair in the auditorium), containing the portraits of a number of the Society's leading men at the commencement of the present century. Among others are Dr. Sims (the then President), Sir John Hayes, Dr. Lettsom, Dr. Jenner, Dr. Babington, and Mr. Ware, who was, we believe, the last survivor of the group. Dr. Thompson gave an interesting and even amusing *resumé* of the life and times of these distinguished men, contrasting them and their work with that of men of the present day. He also paid a pleasing tribute of recognition to the men who were elected Honorary Fellows on the occasion of the International Medical Congress last year, including, among others,* the names of Virchow, Billings, Charcot, Billroth, Tarnier, Nussbaum, Bamberger, and Bigelow. The subject of the oration was as happily chosen as it was admirably treated, and, when printed, will afford pleasure to others than Fellows of the Society, whose earlier history it so graphically portrays. There was a large attendance of Fellows. Mr. Francis Mason, the President, was indefatigable in doing the honours, and altogether a very pleasant evening was passed.

OVARIOTOMY IN BERLIN.

IN a recent number of the *Berliner Klinische Wochenschrift* Professor Schroeder gives a brief summary of 300 cases of ovariectomy performed by him. His result as to mortality is this—seventeen deaths in the first hundred cases, eighteen in the second, and only seven in the third. This mortality of 7 per cent. in the last hundred, Professor Schroeder proceeds to minimise further, by saying of three of the fatal cases that the death was not due to ovariectomy *per se*. In one of these there were several uterine myomata, and he attributes the peritonitis which in this case carried off the patient, to the diminution in the blood-supply of these tumours caused by the ligatures. Two others died suddenly from heart-disease, on the eighth and fourteenth day respectively after the operation. One in the second hundred died on the eighth day from the same cause. Another case, in which a portion of the cyst had to be left behind, died in the sixth week. The three others died from septic peritonitis. No case in which the operation was simple ended

fatally. With regard to this method of viewing the cases, although we admit that Professor Schroeder is quite justified in taking the attitude he does, yet it is not the one best calculated to help forward science. An operator, in judging his own results, ought to accept no excuses. He should regard every death as due to his own fault—either directly, from some error in the operation or the after-treatment; or indirectly, from his not having foreseen the state of things which led to a fatal termination. He should, without mercy to his reputation, include all incomplete operations, or cases in which erroneous diagnosis led to failure. It is only thus that he will make his mistakes into warning lights, marking out the path of safety more precisely than before. These remarks, however, apply little to Professor Schroeder himself; we make them for the sake of those who, we fear, may be tempted by his example to try and explain away their death-rates. As our readers will expect from his good results, Professor Schroeder operates with all antiseptic precautions, including the spray. He thinks it would be to the advantage of patients if all these operations were left in the hands of specialists, for it is only experience that can give fertility in resource when difficulties have to be overcome. He now thinks it possible to remove *any* ovarian tumour; and he mentions two cases in which at an early period in his career he opened the abdomen, but gave up the attempt to remove the tumour, and subsequently, when his experience was larger, again opened the abdomen and successfully extirpated the disease. Age he regards as no contra-indication; he has removed one tumour from a child of thirteen, and another patient left the hospital convalescent on the day before her eightieth birthday.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE Council held a meeting yesterday, pursuant to the provisions of the Supplemental Charter, to elect Examiners for the ensuing year, when the following gentlemen were elected:—B. Wills Richardson, Edward A. Stoker, Edward S. O'Grady, William Thomson, Robert S. Swan, William Frazer, Benjamin G. M'Dowel, Henry R. Swanzy, and Phineas S. Abraham, to examine candidates for the Letters Testimonial and Fellowship; Henry Croly, William J. Smyly, and John J. Cranny, to examine candidates for the diploma in Midwifery; Michael J. Malone, Henry J. Tweedy, and Frank J. Davys, to examine candidates in General Education.

RECEPTION OF M. PASTEUR AT THE FRENCH ACADEMY.

THE medical profession derives a reflected glory from the honours that are crowding upon M. Pasteur. He began as a chemist, and his method is that of a chemist; but it is in the field of disease that he has reaped his great harvest of fame. On Wednesday of last week he was received into the French Academy, and took his place among "the Immortals." The vacant chair that he filled was Littré's, a man who, like Pasteur himself, has shed a lustre on the profession of medicine without being an active member of it either as a teacher or as a practitioner. It fell to the lot of M. Pasteur to be welcomed to the Academy by a man of letters, M. Renan; and the occasion became one for contrasting the methods of men who deal with great questions in different ways. By a curious irony of circumstances, M. Pasteur, in speaking of his predecessor, became the antagonist of materialism and the champion of the spiritual doctrines in philosophy. We say there was irony in this, because, in medicine at least, M. Pasteur is a materialist of the purest water. His whole mind is given to discover the *materies morborum*; so long as he finds the material substance that causes a disease, he appears to be tolerably indifferent to the historical, the

clinical, and the anatomical aspects of his problem. The world will always admire the man who goes straight to the mark, and who gives it that which is practically beneficial. M. Renan represents the school of observers which looks towards all points of the horizon, and is in no haste to take the step forwards to a conclusion and a practical application. He handsomely told M. Pasteur, who is understood to be now engaged on the subject of canine madness, that he had only to look for the *microbe* of that disease, and he would certainly find it. It is hardly credible that the distinguished critic could have been poking fun at the distinguished experimenter; but M. Pasteur's best wishers will hope that he may not think it beside his task to give much of his attention to the phenomena of tetanus.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE quarterly meeting of this Association was held on April 28 at Bethlem Hospital, Dr. D. Hack Tuke presiding. At the opening of the meeting the President referred to the attempted assassination, on the 16th ult., of Dr. Gray, the Superintendent of the Utica Asylum, and a resolution of sympathy was unanimously adopted. The Association then resumed the discussion upon the subject of "Insanity as a Plea for Divorce," which had been introduced by Dr. Savage at the previous meeting. The interest of the debate centred round the recent case of *Hunter v. Esney*, in which the insanity prevented the consummation of the marriage, one or two other special cases being cited by Dr. Savage. As regards insanity before marriage, it seemed to be generally allowed that the question was met by the common law; while, with respect to insanity supervening after marriage, it was felt that in the present condition of things it would be inexpedient to adopt in England a similar system to that existing in Saxony and elsewhere, under which insanity and certain other diseases were admitted as pleas for divorce. Dr. Weatherly then brought forward the subject of "The Supervision of Single Cases of Lunacy in Private Dwellings," which, he maintained, was insufficient and unsatisfactory, quoting in support of his views the statements advanced by him in his treatise on "The Care and Treatment of the Insane in Private Dwellings"; and an interesting discussion followed. Papers were also submitted by Dr. Bower, on "Employment" in the treatment of mental disease in the upper classes; and by Dr. Boyd, on the laws relating to the admission of pauper lunatics to asylums.

THE PARIS WEEKLY RETURN.

THE number of deaths for the sixteenth week of 1882, terminating April 30, was 1300 (702 males and 598 females), and among these there were from typhoid fever 37, small-pox 28, measles 29, scarlatina 4, pertussis 3, diphtheria and croup 70, erysipelas 20, and puerperal infections 7. There were also 60 deaths from tubercular and acute cerebral meningitis, 238 from phthisis, 46 from acute bronchitis, 109 from pneumonia, 103 from infantile athrepsia (36 of the infants having been wholly or partially suckled), and 36 violent deaths (28 males and 8 females). The number of deaths for this week exceeds the mean of the four preceding weeks, and comparing it with the fifteenth week there will be found a diminution of deaths from typhoid fever (from 53 to 37) and of measles (33 to 29). There has been an increase of small-pox from 25 to 28, of diphtheria from 51 to 70, and of erysipelas from 6 to 20. The large number of deaths from erysipelas is very remarkable. The births for the week amounted to 1229, viz., 613 males (430 legitimate and 183 illegitimate) and 616 females (457 legitimate and 159 illegitimate): 100 infants were either born dead or died within

twenty-four hours, viz., 63 males (43 legitimate and 20 illegitimate) and 37 females (27 legitimate and 10 illegitimate).

THE ELASTIC LIGATURE IN ABDOMINAL SURGERY.

A RECENT number of the *Berliner Klinische Wochenschrift* contains an interesting communication on the intra-peritoneal treatment of the pedicle of uterine fibroids, and the removal of tumours and parts of the abdominal viscera by the elastic ligature. The paper is by Dr. Kasprzik, assistant in the Freiburg gynaecological clinic, and is based upon experiments conducted by Professor Hegar. The author believes that in the elastic ligature a means has been discovered by which not only the complete, but the partial, removal of the spleen, kidneys, omentum, even of the liver, can be accomplished without excessive risk. The extremely favourable results which Professor Hegar had obtained with the elastic ligature in the extirpation of uterine fibroids—the risk of secondary hæmorrhage being by it almost completely abolished—led him to devise a series of experiments to test its behaviour in the abdomen, and its applicability to other possible requirements of abdominal surgery. The first set of experiments were performed to see what happens when a bit of india-rubber tubing is left in the abdomen. They showed that it was borne exceedingly well, that it did not excite suppuration or peritonitis. In the second group of experiments, pieces of omentum, uterus, spleen, liver, and kidneys were surrounded with the elastic ligature, and the piece thus secured cut away either with knife, scissors, or the platinum blade of Paquelin's cautery. It was found that parts of the uterus, omentum, or spleen might thus be removed with safety. In the case of the omentum and uterus, india-rubber threads were sufficient; but in that of the spleen, thin solid cords were found to cut through the tissue; but when a piece of india-rubber tubing was used the results were successful. The experiments in removal of pieces of liver and kidney terminated unfavourably; but they were few in number, and Professor Hegar hopes that, by continuing them, knowledge may be gained as to the kind of ligature, and the tension to be put on it, which may lead to success here also. In any case, he thinks, he has proved that the stump of the uterus may be treated with the elastic ligature without risk. He does not think, however, that on that account the question of the intra or extra-peritoneal treatment of the stump is finally settled. The *technique* of the elastic ligature is very important. It is necessary to know how much stretching the india-rubber will bear, and how much will be best for the stump. The firmer the tissue of the latter, the higher will be the tension of the ligature required to arrest hæmorrhage. If, on the other hand, the stump be soft and vascular, a too tightly stretched ligature will cut through it, and dangerous hæmorrhage result. The ordinary method of tying does not suit the elastic ligature, because it slips before the knot can be made fast. Professor Hegar, therefore, simply crosses the ends, seizes them with a special pair of forceps, something like scissors with blunt blades, and then ties together with silk or wire the ends of the ligatures where they cross one another, between the forceps and the stump. The ends are then cut off on the other side of the forceps, and the latter removed.

WE are informed that Mr. Spencer Wells has been elected an Honorary Member of the Royal Society of Sciences and Arts of Gothenburg—a Society which was established 104 years ago.

WE learn from the Crown Agents for the Colonies that Dr. James Hyslop, Assistant-Physician of the Royal Edinburgh Asylum, has been appointed Resident Surgeon of the Pietermaritzburg Asylum in Natal.

FROM ABROAD.

ARTIFICIAL FEEDING IN PHTHISIS.

At a meeting of the Paris Hospital Medical Society (*Gazette des Hopitaux*, April 18), Dr. Dujardin-Beaumetz referred again to this subject, of which we have already given an account in our number for January 21 (page 72). In his present communication he corroborates all that has been stated by Dr. Debove of the great success which attends the feeding, by means of the œsophageal tube, of patients suffering from phthisis and who can retain no food. Successful as his own trials of the plan were, Dr. Beaumetz did not find them come up to those obtained by Dr. Debove, and he found, on investigating the reason of this, that that physician did not content himself with giving eggs and raw meat, but had the meat reduced to an impalpable powder, which is very promptly absorbed. Since M. Beaumetz has followed the same plan he has obtained results as satisfactory as those of Dr. Debove, and he has extended this mode of alimentation to hysterical patients suffering from incoercible vomiting. Food thus injected was not vomited, and the same fact has been observed in the wards of Prof. Charcot. At the discussion which ensued, Dr. Debove stated that he had received in his wards the visits of many hospital physicians, who were able to verify for themselves that the phthisical cases so treated had undergone notable amelioration. The patients had become fatter, and several of them had gained twelve kilogrammes in weight in two months. In most of them the night-sweats had ceased, and the cough had much diminished, so that they seemed to be in a condition approaching recovery. In one case in which death was due to an incidental cause, enormous cavities were found at the autopsy, which were covered with granulations of a healthy nature. To obtain such an extraordinary amelioration it is requisite that these patients should be got to take enormous quantities of nutriment, so as to recover lost ground; and for this purpose they have to be submitted to a kind of training. They will thus take three litres of milk, 600 grammes of raw meat, a dozen eggs, and some powder of lentils. One patient took for sixteen days three litres of milk and twenty-one eggs. In order to insure as complete a digestibility of aliment as possible, the object is to bring the food over a large extent of surface in contact with the digestive juices of the stomach; and with this view milk is the most favourable diet, eggs also, and especially raw eggs, being very useful. The improvement is heralded in especially by the absence of diarrhœa, and by the increase of urea, which in several patients increased from fifteen or twenty grammes to seventy grammes per diem. Dr. Debove chops up the raw meat, and having reduced it to an impalpable powder, introduces as much as 600 grammes at a time by means of the tube, this representing two kilos of fresh meat—which is truly an enormous dose. But the absence of diarrhœa, the increase of weight, the considerable augmentation of the proportion of urea, and the reduction of fecal matters to their minimum, demonstrates forcibly that this regimen is successful. The meat-powder is, moreover, perfectly digestible. M. Joffroy inquired of M. Beaumetz whether the hysterical subjects he had so successfully treated were only in the first stage of hysterical anorexia, or whether any of them were at the second period, when it had lasted for eighteen months or two years, these being the truly difficult cases in which all treatment usually fails. Dr. Beaumetz replied that in his cases the vomiting had not lasted more than three or four months. In the advanced period we have also to do with inanition, so that patients will die of hunger; but this period must not be waited for before recourse is had to artificial feeding. The curious point is that these patients retain nothing that is taken by the mouth, and do not reject that which is administered by the sound. Mr. Troisier mentioned the case of an hysterical subject convalescent from typhoid fever, who ceased vomiting after being fed by the tube; and the paroxysms of coughing brought on by the introduction of this did not induce vomiting, although, before, the slightest cough caused it.

CHLOROFORM-WATER.

In an article in the *Gazette des Hop.*, March 25, attention is drawn to a highly useful preparation of chloroform for

internal use, made by the simple addition of water, and one which will favour the more extended employment of this useful agent. Profs. Lasègue and Regnaud have shown, after due investigation of the subject, that this is the only preparation to be relied upon; and that the solubility of chloroform in water does not exceed 9 per 1000. This solution is obtained by pouring an excess of this substance into a bottle three parts full of distilled water, shaking the mixture repeatedly, and then allowing the insoluble chloroform to deposit until complete transparency is obtained. The separation of the saturated solution is then made by decantation, or by means of a syphon. This, however, being too strong for internal use, requires dilution with 9 per 1000 of its weight of water. Various salts (as chlorate of potash, borate, bicarbonate, and salicylate of soda) may be dissolved in this water without producing any modification; and Profs. Lasègue and Regnaud are of opinion that chloroform-water, either pure or diluted, will meet every need of the internal administration of this substance. Giving a pleasant taste in the mouth, which lasts for a minute or two, it is well calculated to disguise the unpleasant taste of various medicines, as castor oil, etc.; and by the direct action which it exerts on the mucous membranes and other surfaces with which it comes in contact, it may prove useful in certain affections of the mouth, gums, teeth, velum, and pharynx. Swallowed, it exerts a stimulant action on the stomach, but it acts differently according as it is taken before, during, or after a meal, and according to the lapse of time that has intervened between taking the meal and the absorption of the chloroform. Given before a repast, in aid of the appetite, the chloroform-water is a bad agent; but given after a meal, whether alone or combined with an alcoholic wine and sweetened, it increases the stimulant properties of the wine or produces the same effects. Wherein this water enjoys an incontestable efficacy, which is proper to it, is when it is administered for combating the multiple affections which supervene during the course of digestion and produce its disturbance. Its maximum therapeutical action is obtainable three or four hours after the meal, when functional disturbances exhibit themselves by yawning, distension, gaseous eructations, a sense of epigastric pressure or heaviness, flushings of the face, and threatenings of vertigo. But in a higher degree still, when the digestive disturbances are manifested by acute lancinating pains of the stomach, oppression, palpitations of the heart, fleeting febrile action, dryness of the mouth, painful tympanites, etc., the action of the chloroform-water is injurious, this period of the indisposition being ill-suited for any stimulant whatever. In a word, the chloroform-water acts on the stomach in the same calming way as upon the interior of the mouth, and if it do not cure the affection, at least it attenuates its consequences. It is the remedy for the crisis, but not dispensing with the requisite principal treatment. It is a remedy eminently suitable as an efficient calmant of the sufferings which ensue from painful digestion in dilatation of the stomach.

HYPODERMIC INJECTION OF MORPHIA IN IRREDUCIBLE HERNIA.—The *Gazette des Hopitaux* (March 25) refers to some cases of hernia treated by Dr. Philippe, of St. Mandé, which, failing to yield to the taxis, did so promptly to a hypodermic injection of morphia; and it is suggested that, although in certain well-defined cases nothing but prompt recourse to the operation should be thought of, there is in other cases in this procedure a powerful means of action.

FRACTURED RIB FROM MUSCULAR ACTION.—Mons. Desprès relates (*Gaz. des Hop.*, February 28) one of these rare cases in a lady, fifty-three years of age, and in good health except for a temporary attack of chronic bronchitis with a paroxysmal cough. During a fit of coughing she fractured the eleventh rib of the left side, four fingers' breadth from the junction with its cartilage. Malgaigne's diachylon plaster was applied, and in eighteen days consolidation was quite complete, so that the patient could lie easily on the injured side. [In the *Union Médicale* of April 29, M. Doit, of the Vincennes Convalescent Asylum, relates the case of a tailor, fifty-nine years of age, who, while about to sew, was seized with cough, during which his sixth rib on the left side was broken at its anterior third. There was much greater mobility of the fragments in this case, and reparation was much slower than in the other.]

REVIEWS.

Antiseptic Surgery: its Principles, Practice, History, and Results. By W. WATSON CHEYNE, M.D., F.R.C.S., Assistant-Surgeon to King's College Hospital. With illustrations. London: Smith, Elder, and Co. 1882. Pp. 616.

IN noticing a book like that of Mr. Cheyne upon Antiseptic Surgery, we shall probably best consult the interests of our readers, not by entering into any criticism of the theories or the practice of which he treats,—this would only be to fight over again the well-fought battle of the merits of the germ theory as applied to surgery, and to haggle over the amount of indebtedness which the modern improvements of our art owe to the scientific application of this theory to practice,—but rather by indicating the manner in which the book has been planned, and showing, as far as may be, the materials with which it deals.

Mr. Cheyne starts from the very beginning with a discussion of the particulate theory of fermentation, and devotes his first two chapters to an exposition of it as applied to boiled and to unboiled substances; dealing with the subject in an historical manner, and directing attention to the most important observations that have been made in this direction. One cannot fail to be struck, in reading these chapters, with the length of time it has been under discussion, seeing that as long ago as 1810, Gay-Lussac was engaged in investigations upon this question, which has ever since been fermenting, so to speak, in the scientific mind; and the outcome of which may be fairly stated in Mr. Cheyne's words, that "the causes of fermentation are solid particles, probably of an organic nature, which are present in varying quantities in the surrounding air, and which are deposited as dust on all surrounding objects": a conclusion with which probably almost everyone, be he a germ-theorist or not, would at the present day agree. This fact, coupled with another, viz., that these particles have their activity interfered with by contact with substances known as antiseptic, is shown to be the groundwork upon which the *aseptic system*, as Mr. Cheyne calls it, has been founded. It is interesting to note in this connexion, that, in conducting his own experiments, Mr. Cheyne has found the spray to afford a perfect safeguard against the entrance of such particles, in an active state, into his glasses when uncovered during the necessary manipulations—a fact which may be almost said to prove its efficacy for the purpose for which it is employed in surgery.

The next five chapters deal with the practical methods of applying asepticism to the treatment of wounds; they refer, for the most part, to Mr. Lister's practice, which Mr. Cheyne has had unusual opportunities of observing; but they also deal with certain other plans to attain the same end which are being employed in Germany and other countries on the Continent. The reader will here find—that which it will be difficult for him to discover elsewhere—not only an accurate and minute account of Mr. Lister's practice, which refers specially to the maintenance of the aseptic state, but many other practical points which have from time to time been introduced by this eminent surgeon. After this he is launched into the inevitable discussion on the spontaneous generation, in which the names of Pasteur and Pouchet, Bastian and Roberts, are constantly recurring; and he must thread his way through the mazes of heterogenesis, abiogenesis, growth in vacuo, and what not. We will content ourselves with saying that the views of the various authors are clearly and we think fairly stated, and that the chapters form an interesting *resumé* of the controversy. Need we add that Mr. Cheyne does not confess himself a convert to the theory of spontaneous generation?

At the end of this part of the subject some space is devoted to the consideration of a question that is one of the bugbears of the antiseptic system, viz., the fact that under some circumstances micro-organisms are found in the fluids and tissues of the living body; to which is added another, that micrococci are not unfrequently found in the discharges of a wound which is being treated antiseptically, and also in the pus of an acute abscess when this is first opened. There appears, however, to be no reasonable doubt that micrococci find their way into wounds, at first aseptic, only in cases where the dressing is left unchanged for a considerable time, as indeed was demonstrated by Ogston, who succeeded by frequent dressing in preventing their development in any of his aseptic wounds.

Some chapters are next taken up with the question of the degree in which the antiseptic principle forms part of various methods which have been practised both in recent times and in far antiquity, with the object of showing that much of the success of many of these methods has really depended upon the avoidance of fermentation of the discharges, whether by the old-fashioned balsamic applications, or by the open treatment or continuous injection that have more recently been in vogue. Many of these plans were, it must be confessed, not very efficient from this point of view; but the endeavour to determine to what extent the object was attained has led the author to give a very instructive sketch of the gradual development of surgical dressings from quite early times. Amongst other names of more modern workers, that of Lemaire necessarily occurs, and it is clearly shown that, although he undoubtedly was the first to use carbolic acid as an application to wounds, and though his results were good, yet that he cannot be said to have formulated anything like a scientific system based upon the principle of preventing altogether the occurrence of fermentation in wounds. "He was," to quote Mr. Cheyne's words, "an advanced treater of wounds with antiseptics, and nothing more."

The latter part of the book will be looked upon by many as perhaps the most important; it deals with the result of antiseptic surgery, not only in the hands of Mr. Lister, but also in that of many other surgeons, both at home and abroad. Many and loud have been the complaints that we have no trustworthy statistics of the results of antiseptic surgery, and are thus without sufficient grounds to come to any conclusion as to its comparative merits. We do not think that this has been altogether just, seeing that Mr. Lister's Glasgow statistics, as well as others of different series of cases, have long been before the profession, whilst those of Nussbaum and other German writers have been quoted and repeated over and over again. But it has been urged that what is needed is a complete account of all the cases under the care of a surgeon who treats his wounds antiseptically, to compare with those of another or others who have no such object specially in view. We have often maintained, indeed it is a sort of truism, that all statistics are apt to mislead; it is, however, satisfactory to be able to compare—though the task of comparison is, it must be confessed, necessarily somewhat invidious—two such very similar series of cases as those of Mr. Spence and Mr. Lister. It is obviously impossible in the short space at our disposal to analyse the tables which Mr. Cheyne has supplied, but we would commend them, as well as the remarks upon the fallacies that even such tables entail, to the careful perusal of the reader. It is shown that Mr. Lister's cases treated antiseptically compared very favourably with those of his own in which such treatment was impossible, and also that "The same contrast in favour of aseptic surgery is shown by the results obtained by another surgeon, in the same hospital, during the same time, and under circumstances in every way more favourable, both as regards the severity of the cases and the hygienic conditions under which the patients were placed. With regard to the latter point it must be noted that Mr. Spence's wards were well ventilated and at the top of the building; Mr. Lister's wards were at the lower part of the building, some on the basement floor. Mr. Spence did not overcrowd his wards; Mr. Lister had, as a rule, nearly seventy patients in wards containing fifty beds, and these beds were more closely packed than Mr. Spence's. . . . Then, lastly, Mr. Spence's wards were thoroughly cleaned out once a year; Mr. Lister's wards, on the other hand, did not, at his own request, undergo this annual process."

Besides these statistics and many others are those important tables of Mr. Lister's joint cases and spinal abscesses, and of his compound fractures, since about 1871. Failures as well as successes are here faithfully detailed, and early cases as well as late are given, so that they do not represent the amount of success which may reasonably be expected with our present perfected methods; but a careful study of the spinal abscesses and the joint cases, as well as of those compound fractures made by the surgeon, can hardly fail to be convincing and striking to an unbiased mind.

We have probably now said enough for the purpose of showing that Mr. Cheyne's book, while it gives all the details which the practical man can want, and clearly points out the essentials and minutiae of the practice of antiseptic surgery at the present day, is in great part made up of

matter, not for slipshod perusal, but for careful study and thoughtful consideration. It is written in an easy and picturesque style, which in parts perhaps verges almost on the colloquial, and can nowhere be accused of heaviness. It is high time that a complete work of the kind should be within reach of the student, and we cordially congratulate Mr. Cheyne upon the result of his labours, which must have been great. That it will remain as a permanent guide to the practitioner can of course not be anticipated, for modifications and improvements must, in the natural course of events, arise; but it will always hold its place as a sound and judicial account of the greatest surgical advance of our time, at the period when we may fairly suppose that it has reached its maturity.

We should add that the woodcuts and lithographs are clear, artistic, and expressive.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

PROSECUTION OF QUACKS—ELECTIONS TO HOSPITALS REPORT OF AMBULANCE COMMITTEE.

"DR." TOMANZIE, "a coloured gentleman," has been sentenced to two months' imprisonment for giving false certificates of death. He has, under the shelter of an "Artisans' Medical Society" (which is supposed to have no real existence as a society), been carrying on a lucrative practice in Liverpool; and his unlawful career might have continued had it not been for the action of a number of medical men, who formed themselves into a "Medical Defence Association" for the purpose of prosecuting him. Tomanzie is well known in Derry, where his fame reached a higher pinnacle before the collapse came than it had attained in Liverpool. It is strange that whilst the law protects the poor from bad food and from bad drink, the greatest impostors are allowed to parade themselves as medical men before the public, and to dupe their victims to the utmost. Liverpool is at the present time flooded with quacks, whilst their doings, that sometimes involve the lives of their patients, are common themes of conversation amongst the profession.

The report of the Hospital Election Committee has been presented to the Medical Institution, and adopted, after some discussion, by a small majority. The minority included some influential medical men, who protested strongly against the action of the majority, especially in regard to the first clause. The report is as follows:—

"1. The electoral body shall consist of not less than one hundred and fifty nor more than two hundred members, to be selected by the trustees from their own number.

"2. This body shall be elected by nomination papers, which shall be prepared as follows:—(a) The Committee and the Medical Board of the Hospital together shall prepare a list of the required number of trustees. (b) Each trustee shall receive a printed copy of these nominations, and shall be entitled to obliterate any name or names, and substitute those he prefers, thereafter signing the paper and returning it to the Chairman of the Hospital Committee or the Secretary. (c) The papers shall be opened at a special meeting of the Nomination Committee, and those declared elected who have the greatest number of votes. (d) The electors so chosen shall hold office for five years.

"3. This electoral body shall have no other powers or functions.

"4. Advertisement in the public papers shall be prohibited.

"5. The candidates shall be permitted to send statements of their claims, with or without testimonials, to the members of the electoral body, the Committee, and the Medical Board.

"6. The electoral body shall vote by ballot between certain hours, and at a place appointed by the Committee as under the present system.

"7. Members of the electoral body who may be incapacitated by sickness shall be permitted to vote by proxy, provided that a certificate by a legally qualified medical practitioner be presented at the same time.

"8. The time that shall elapse between the advertisement of the vacancy and the day of the election shall not exceed fourteen days.

"9. No candidates shall be eligible who has not given notice to the Chairman of the Committee at least seven days before the date of the election; and in case of there being only one candidate, the said Chairman may declare him appointed without further election.

"10. In case of an equality of votes the decision shall be by lot.

"11. Honorary assistant medical officers shall be elected in the same way as honorary medical officers."

At the same time the report of the Hospital Ambulance Sub-committee was received and adopted unanimously. Several of the recommendations in it refer to local arrangements and to topical details, but the following are of universal interest:—

"1. That the ambulance should be purchased and maintained by the Watch Committee of the borough, at their central fire station in Hatton-garden, in conjunction with the district fire stations and the police.

"3. That in the event of a serious accident requiring the ambulance, information should be at once given to the nearest Bridewell by the constable on duty. That a message should be at once telegraphed to the central station, "Ambulance required," with the name of the street or locality where the ambulance is required, and also stating which is the nearest hospital.

"4. That the inspector on duty at the central office shall, on the receipt of such message, cause the ambulance to be despatched, and shall at the same time telegraph to the Bridewell nearest to the hospital named, requesting those on duty to inform the hospital authorities by telephone or telegraph of the expected arrival of the ambulance.

"5. That the ambulance after leaving patients at the hospital should be immediately driven back to the central station, unless word should be sent to the hospital of its being required elsewhere, when it should be immediately despatched."

"6. Besides the driver, the ambulance should be in charge of one or more police constables, who should be instructed as to the removal of injured persons."

The Sub-committee observe that "by these arrangements little expense need be incurred beyond the cost of the ambulance. The horses used by the fire brigade could be made available for the ambulance; and whereas now the services of four, five, or six officers are required to convey 'stretcher cases' to the hospital, two at the most would suffice with the ambulance. The expense of establishing telegraphic or telephonic communication with the Royal Infirmary and the hospitals would be counterbalanced by the saving in cabs, officers' time, etc., and the communication would be most useful in many ways."

To the report a map was annexed, on which the positions of the different fire stations was clearly indicated.

PREVENTION OF THE PURULENT OPHTHALMIA OF INFANTS.—Dr. von Credé reports in the *Archiv für Gynäkologie* 400 additional cases in which immediately after the infant's birth he cleansed its eyes with water and dropped into each eye by means of a glass rod a single drop of a 2 per cent. solution of nitrate of silver. No infant so treated has had the ophthalmia, and von Credé recommends that every midwife should be furnished with a small phial of the solution.—*Centralblatt*, April 8.

DEATH FROM CHLOROFORM.—Dr. Dujardin-Beaumetz related, during the discussion on chloroform which has now lasted so long at the Académie de Médecine, an account of a death from it, this being the third death from chloroform which has taken place since the discussion commenced. It occurred in the person of a man who was in a perfect state of health with the exception of an attack of sciatica. For some time past Dr. Dujardin-Beaumetz has for this affection employed forced subcutaneous extension, flexing the thigh upon the trunk (complete resolution having been obtained by chloroform), so that the foot of the patient is brought close to his head. In this case he administered the chloroform intermittingly on a compress, and the patient had not inspired ten grammes when he carried his hand violently to his head, became of a violet colour, ceased to breathe, and died. The chloroform employed was that of the hospital, and the patient had nothing the matter with his heart, and was, in fact, quite well except for the sciatica.—*Gaz. des Hop*

GENERAL CORRESPONDENCE.

THE ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

LETTER FROM DR. SAMUEL WILKS.

[To the Editor of the Medical Times and Gazette.]

SIR,—The following sums, amounting altogether to more than a thousand pounds, have been already subscribed to the general purposes of the Association for the Advancement of Medical Science by means of Research. Our first expenditure will be in reprinting and circulating the numerous expository and instructive statements which have appeared on the methods and objects of scientific medicine. We must also have sufficient funds in hand to meet promptly any attack from outside upon the invaluable labours of competent investigators. And, thirdly, we hope to be able to assist such researches by the material aid as well as by the moral support of the united profession. Subscriptions may be forwarded to me, or to Dr. Pye-Smith, the Hon. Secretary.

I am, &c., SAMUEL WILKS,

72, Grosvenor-street, May 3.

Treasurer.

	£	s.	d.		£	s.	d.
The late Charles Darwin	100	0	0	Dr. Owen Rees ...	10	10	0
Mr. Bowman ...	105	0	0	Mr. Cooper Forster ...	20	0	0
Mr. Hawksley, C.E. ...	10	10	0	Dr. Geo. Johnson ...	10	10	0
Dr. Brunton ...	21	0	0	Dr. Pavy ...	10	10	0
Sir William Gull ...	100	0	0	Sir J. Fayrer ...	5	5	0
Dr. Ord ...	10	10	0	Sir W. Jenner ...	52	10	0
Mr. Durham ...	26	5	0	Sir J. Paget ...	52	10	0
Dr. Matthews Duncan ...	50	0	0	Dr. Pre-Smith ...	10	10	0
Mr. N. Montefiore ...	20	0	0	Mr. Green (Sandown) ...	2	2	0
Sir Thos. Watson...	10	10	0	Dr. Urban Pritchard ...	3	3	0
Dr. Marion Sims ...	1	1	0	Mr. Wright (Leeds) ...	1	1	0
Dr. Wm. Brace ...	1	1	0	Dr. Curnow ...	5	5	0
Mr. Saunders ...	10	10	0	Dr. Caton (Liverpool) ...	10	10	0
Dr. Maclean (Netley) ...	1	1	0	Messrs. Macmillan ...	10	10	0
Dr. Herbert (Paris) ...	5	0	0	Dr. Theodore Williams ...	1	1	0
Dr. S. Ringer ...	10	10	0	Dr. Quain ...	21	0	0
Dr. Andrew ...	10	0	0	Dr. Weber ...	25	0	0
Mr. Clover ...	1	1	0	Sir Erasmus Wilson ...	100	0	0
Dr. Stevenson ...	1	1	0	Mr. J. Hutchinson ...	10	10	0
Mr. Spencer Wells ...	52	10	0	Sir Wm. Mac Cormac ...	5	5	0
Sir Geo. Burrows ...	25	0	0	Sir Henry Thompson ...	50	0	0
Dr. Brete (Watford) ...	1	1	0	Dr. Haldane (Edinburgh) ...	5	5	0
Mr. Morton Smale ...	1	1	0	Mr. Lister ...	50	0	0
Mr. Joseph Clarke ...	0	10	0	Dr. Gerald Yeo ...	25	0	0
Dr. Wilks ...	25	0	0	Dr. Acland ...	25	0	0
Mr. Spottiswoode, F.R.S.	10	0	0	Dr. Cholmeley ...	2	2	0
Mr. Bryant ...	5	5	0				

THE PROPOSED NEW HOSPITAL FOR THE NORTH OF LONDON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Anyone glancing at a map of London is at once struck by the extremely unequal distribution of its hospitals; and this inequality is not less striking when the number of beds in the individual hospitals is considered.

The ultimate purpose of the meeting held on April 26, at the Athenæum in Camden-road, will assuredly have the good wishes of all who are familiar with the needs of North London. It is, however, more than an open question whether the erection of a new hospital would best answer that purpose. What has been the result of the close association in position of the general hospitals above referred to? They are practically rivals for the support of their neighbourhoods, and that with the undesirable results with which we are acquainted: not only the closure of wards, but also what is, if possible, more demoralising—the constant special applications for funds to prevent such a disaster.

The Committee of the Great Northern Hospital have been by no means blind to the want of increased hospital accommodation in the North of London. Considerable difficulties have stood in the way, but these have been partly overcome; and they are hopeful that with the support of the district they may be able so to extend their working as to supply the want.

I am, &c.,

A MEMBER OF THE STAFF OF THE GREAT NORTHERN HOSPITAL.

May 3.

THE “STANLEY” AMERICAN MEMORIAL.—Any surplus of the £1064 subscribed to this fund for a memorial window in the restored Chapter House of Westminster Abbey is to go to the Westminster Hospital Training School.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 11.

JOHN MARSHALL, F.R.C.S., President, in the Chair.

CASE OF TUMOUR OF THE BLADDER (IN THE MALE) SUCCESSFULLY REMOVED THROUGH A PERINEAL SECTION OF THE URETHRA.

SIR HENRY THOMPSON read notes of a case of tumour of the bladder (in the male) successfully removed through a perineal section of the urethra; with remarks on the applicability of the operation in certain cases. The patient, Thomas R., aged twenty-nine, consulted him on July 26, 1880. Eight years previously the man had passed “a piece of gravel the size of a pea.” After this he felt nothing unusual until three years ago, when his micturition became more frequent and was followed by pain in the end of the penis; also occasionally blood appeared in the urine, especially after exercise. With these symptoms the patient was sounded, and a small calculus detected. On August 5, Mr. Bailey gave ether, and Mr. Furber, who had seen T. R. previously, was present at the operation. It was a small oxalate of lime calculus and was easily crushed and removed. Very little improvement followed the operation. The bladder was not quite emptied by the natural efforts; the gum catheter was used daily, and on two occasions gave signs of the presence of something in the bladder, which a subsequent exploration with the lithotrite did not discover. Such results were unusual and somewhat puzzling. Being relieved, the man resumed his employment, and was occasionally seen relative to the still existing slight symptoms, which, however, gradually increased. On October 5 the bladder was examined, and a quantity of phosphatic deposit removed with the lithotrite. A body, which at first felt like calculus, was seized and partially crushed under pressure, but it was evidently fixed, giving the operator the impression that he was dealing with a portion of stone partially impacted, and that the remainder would be beyond reach. More phosphatic matter being washed out, it was decided to watch the result for a short time, and to open the bladder if necessary, as had before been done in cases of sacculated calculus. Accordingly, as after three weeks the patient had received very little benefit from the last operation, it was decided to cut as in median lithotomy, and this was done on November 6, 1880. Professors Paggi (of Florence), Seegen (of Vienna), and Dr. Ceeley (of Aylesbury), happening to be in town, were asked to be present. A finger having been introduced well into the bladder, and pressure being made above the pubes, a tumour was soon recognised, about the size of a chesnut, growing apparently from the opposite wall or fundus, and somewhat to the patient's left, coated with phosphatic matter, and evidently the fixed body that had formerly been seized with the lithotrite and denuded of its sabulous covering. Taking a pair of small forceps, and adjusting them to a full and firm hold, the masses were then twisted off without difficulty; one or two small pieces were subsequently withdrawn, but the tumour appeared to be entirely removed, and very little bleeding followed. He made a rapid recovery and speedily regained good health, never having had any return of symptoms since the operation, now about fifteen months ago. During that period the author had seen him only two or three times, so as to be assured of his continued health. The patient was presented at the meeting in excellent health and quite free from all urinary symptoms. Regarding this and other cases which have afforded similar results, the author advises that, in certain cases of hæmaturia which is clearly vesical, and is not explicable except by the hypothesis of impacted calculus or vesical tumour, an incision of the membranous urethra from the perineum, for the purpose of exploring the bladder, should be made. He proposes the incision ordinarily made in the median operation of lithotomy for the purpose of introducing the finger, and forceps if required, for research and removal when necessary. The symptoms are described, the presence of which generally indicate the necessity, or at all events the possible propriety, of adopting such a proceeding. The tumour was examined

by Mr. Stanley Boyd, of University College Hospital, and was found to be a simple fibroid in character.

The PRESIDENT said that Sir H. Thompson's case offered great encouragement for such operations. The diagnosis of tumours of the bladder, and the mode of operation and after-treatment, were all matters of the greatest importance.

Mr. BRYANT thought well of the operation adopted, which had been yearly growing in favour. The operation had suggested itself to him in three cases in which hæmaturia and other symptoms were present. In one of the cases the bladder was found, after death, to be full of villous growths; in the other two there was cancer. Any operation would have been useless in these cases; but there were many cases in which surgical interference would have been justifiable. A clean cut into the bladder for the purpose of exploration was not a severe operation, and was quite justifiable in certain cases. Good results sometimes followed simple incision in inflammatory states of the bladder. The median operation was perhaps the best where the prostate was healthy and the neck of the bladder sound. In other conditions the lateral operation was to be preferred.

Mr. REGINALD HARRISON said that he had little doubt that the case described would give an impetus to operations on the bladder for other purposes than the removal of stone. He could remember the time when, if a surgeon, in performing lithotomy, found anything but a stone, he was looked on with suspicion. He had opened the bladder from every accessible part; and had always felt that the median operation gave him least command over the parts, while the lateral incision gave most room. He thought that the danger of hæmorrhage in the lateral operation had been rather overrated.

Mr. HENRY MORRIS asked whether an incision in the median line was not equally justifiable when, though a cure could not be obtained, relief of pain and other symptoms might be afforded, as in chronic cystitis and tubercular cystitis. He had lately met with an obstinate case of chronic cystitis, in which he had made an incision in the middle line of the perineum. This gave great relief to the patient for the time, but he died at the end of seven weeks from suppuration of the kidneys. He preferred the median incision, because the wound had less tendency than the lateral to heal rapidly.

Mr. HOLMES said that opening the perineum for chronic cystitis and the operation described by Sir Henry Thompson were two different things. It seemed that the great difficulty was to diagnose between tumours of the bladder and chronic cystitis. When the sufferings of the patient were very great, and the presence of a tumour was indicated, an operation for its removal was justifiable; but where the symptoms were acute, and the growth was making rapid progress, the operation should only be undertaken at the urgent request of the patient and his friends. Cystotomy for the relief of chronic cystitis was an established operation. He thought that there was no difficulty in keeping the wound open after the lateral incision, and this operation was better for reaching all parts of the bladder than the median incision.

Mr. BERKELEY HILL said that cases where a tumour in the bladder could not be dealt with were not so numerous as was supposed. The end of all cases of tumour of the bladder seemed so certain, that it would not be right to be deterred from operating by fear of hæmorrhage.

Mr. PEPPER had seen five cases of operation for tumour in the bladder. The first case was that of a female child at University College Hospital, under Mr. Marshall. The child died, and the bladder was found to be filled with a mass of gelatinous polypi. In the second case there was an enlarged middle lobe of the bladder, which was excised before removing a stone; the man died. The three other cases were at St. Mary's Hospital. Two of the patients died—one from hæmorrhage, and one from pyæmia; and the third had an incurable fistula left after the operation.

Mr. GODLEE asked whether direct examination gave an aid to diagnosis.

The PRESIDENT said that cases of tumour of the female bladder stood entirely apart from those in the male; rapid dilatation of the female urethra enabled the bladder to be readily examined. In the diagnosis, the age of the patient must be taken into account, as movable tumours, fibroid and polypoid, rather occurred in children and at an early age; cancerous and villous growths later in life. The lateral inci-

sion seemed to have been generally chosen; it was used in all the successful cases, and in all the patients had gone on remarkably well, without hæmorrhage or other unfavourable symptoms.

Sir HENRY THOMPSON said that there had been great want of clearness in the definition in the successful cases: prostatic outgrowths having been often confounded with tumours of the bladder, from which they were totally distinct. No case of malignant tumour should be operated on, but it was difficult always to identify such tumours. He would not operate in such cases, nor in villous tumours. A simple incision would often do good, and, though he preferred median section, that operation was the best to which the operator was most accustomed. Either would suffice to examine the bladder. Perineal section was what was commonly wanted. In lithotomy the great danger lay in the removal of the stone, not in the cutting. He did not advocate opening the bladder in all cases of difficult diagnosis.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, APRIL 3.

Mr. S. LEE RYMER, President, in the Chair.

Mr. ACKERY showed two cases of Unilateral Syphilitic Deformity of the upper central Incisors; in each case the left central showed the typical notch, whilst the right was normal.

Mr. COLEMAN showed a model of a case in which there were two Supernumerary Centrals of distinctly syphilitic type, whilst the proper centrals, which were coming down within the arch, were well formed. The patient presented other evidences of syphilitic taint.

Mr. GADDES read notes of a case of Recurrent Epulis, which gave rise to a good deal of discussion. A girl was sent to the National Dental Hospital on account of a tumour about the size of a bean, which bled frequently, and was connected with the first right upper molar. Under gas and ether the tooth and the bulk of the tumour were removed. The growth proved to be a round-celled sarcoma, very vascular, and attached to the periosteum of the buccal roots of the tooth. In the course of a few days a mass of granulations appeared, filling up the space recently occupied by the tooth. In spite of several applications of nitric acid, this mass rapidly increased in size, and at the end of three weeks it was evident that something more must be done. Gas and ether having again been administered, Mr. Gaddes removed the whole of the outer alveolar plate with the hyperplasia, and then gouged away the socket of the tooth with the gum tissue nearly to the floor of the antrum, care being taken not to interfere with the adjacent teeth. This had the desired effect; the wound healed soundly, and when the patient was last seen, four months after the operation, it was difficult to believe, from the appearance of the part, that so much of the bone had been removed.

Mr. S. J. HUTCHINSON thought that dental licentiates were not justified in undertaking the treatment of such cases as this. The dental licence only entitled its possessor to practise dental surgery, and if he wanted to practise oral surgery he ought to become fully qualified as a surgeon. He was himself an M.R.C.S.; but, practising simply as a dental surgeon, he was always in the habit of referring such cases to a general surgeon or a general hospital, and he thought that this was the proper course to pursue.

Mr. F. H. WEISS said he was not prepared to assert that they would have acted as they had done if they had known the exact nature of the case from the beginning; but it looked at first sight a very simple one, and it was only after the first operation that they found out with what they had to deal. He suggested that it would be a good thing if the Society would express some decided opinion as to what should be considered to be the limits of dental surgery.

The discussion was continued by Mr. STOCKEN, who thought that the duties of the dental practitioner should include the treatment, both local and constitutional, of all diseases arising from, or connected with, the teeth; by Mr. R. H. WOODHOUSE, who thought they would do well to confine their attention to the care of the dental tissues, since, besides the risk and trouble involved in the treatment of

such cases as that described by Mr. Gaddes, such practice would probably cause ill-feeling between the dental and surgical professions; and by Mr. LAWRENCE READ, who thought that an expression of opinion on the subject by the Society was inadvisable, since it could have no power to enforce its decision, and the probability was that members would continue to conduct their practices according to their own ideas. This appeared to be the general opinion of the meeting, and the matter dropped.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 5.

DR. GEORGE BUCHANAN, President, in the Chair.

THE POLICY AND PRACTICE OF GLASGOW IN THE MANAGEMENT OF EPIDEMIC DISEASES.

DR. JAMES B. RUSSELL, Medical Officer of Health for Glasgow, read a paper on the policy and practice of Glasgow in the management of epidemic diseases. Proper differentiation of function in the growth and development of the various organisations of a community is but slowly attained, especially as regards the care of the public health. The tendency is to try the police, poor-law, charitable and other departmental organisations, as the origin of this function, or to levy a little service upon each in the hope of so meeting the entire round of sanitary requirement. Various stages are thus recognisable, and these were illustrated from the history of Glasgow with reference to epidemic diseases. The plague was encountered, according to the lights of the time, by the municipal authorities. The outbreaks of typhus, for which the city was notorious, were dealt with by certain corporate bodies who cared for the permanent poor, and by the magistrates, with the help of the charitable resources of the Royal Infirmary. The Scotch Poor-law Act of 1845 introduced another body, but the frightful epidemic of 1847 proved the essential weakness and inefficiency of a mixed system of parochial, charitable, and municipal treatment of epidemic disease. The Glasgow Police Act of 1862, renewed and amended in 1866, together with the Scotch Public Health Act of 1867, enabled the municipal authorities, educated by circumstances which were described, to develop by degrees their present policy and practice. They have now provided from rates hospitals of their own for fever and small-pox. Into these anyone living within the area of the rates, which extend to fully nine and a half square miles, is admitted free of charge. No person suffering from infectious disease has been treated as a pauper in a parochial hospital for ten years. Beyond this area, 25 per cent. of the population lives under nine burghal jurisdictions, independent of that of Glasgow. But by appealing to the Board of Supervision to compel these bodies to appoint medical officers and sanitary inspectors, and by procuring the exclusion of their cases from the Royal Infirmary, hospitals have been erected by five of these authorities, and the remainder send their cases to the Glasgow municipal hospitals at a charge which covers current expenditure and interest on capital. In this way the undoubted sanitary evils of such territorial subdivision of one populous community have been minimised. A general description of the routine of the daily practice of the Glasgow Sanitary Department was given. The special practice as applied to small-pox was fully detailed as being of peculiar interest to London. The securing of the thorough primary vaccination of the population is deemed of such supreme importance that although the Scotch Vaccination Act vests the enforcement of its provisions in parochial boards, the Glasgow municipal authorities have *ex gratia* assumed an additional supervision. Defaulters are traced with much more success, and with little extra labour, by the sanitary inspectors. As to revaccination, experience has shown that it will be accepted by the mass of the population only in the presence of small-pox. Under these circumstances, the method at first adopted was to cause the inspectors to make out lists of persons who would consent, and then to send a medical man to perform the operation; but this delay was fatal to the effectual protection of any number. The majority refused to accept his services. The common-sense aspect of the situation was therefore seen to be this: If the lymph is carefully selected under medical supervision, any intelligent

layman can be taught to apply it as well as a medical man. The medical vaccinator in charge of the station for primary vaccination is therefore charged with the duty of selecting the lymph and teaching the epidemic inspectors. They always carry a stock with them, and, on going into an infected house, at once offer their services in the house and in the locality. Few recalcitrants are encountered, and protection is there and then secured. Compulsory removal to hospital was vigorously enforced. In the ten years 1871-80 there were 12,718 primary vaccinations by the medical vaccinator, and 9614 revaccinations by the staff. Small-pox was epidemic during the four years 1871-72-73-74, during which time 4328 cases were known to exist, of which 74 per cent. were treated in hospital, and 8730 revaccinations were recorded, or an average of fully two persons for each case. The total deaths in those years numbered 786, of which 67 per cent. occurred in hospital. The death-rate was never higher than 4.3 per 10,000 inhabitants, and averaged 3.8. Since 1875, when small-pox caused only 2 deaths, it has been in abeyance, there having been only 25 deaths in seven years. The Scotch towns have all in recent years been very free of small-pox; but a more correct estimate of the comparative immunity is obtained by taking in each case the epidemic acme. In Glasgow this was passed with only 4.3 deaths per 10,000 inhabitants in 1873; it reached 46.7 per 10,000 in Leith in 1872; 35.3 in Edinburgh in 1872; 32 in Greenock in 1873; 24.2 in Dundee in 1872; 14.5 in Aberdeen in 1872; 12.5 in Paisley in 1874; and 6.5 in Perth in 1872. The special service applied to the suppression of typhus was the prevention of overcrowding by night inspections of small houses, under local powers, averaging 41,000 per annum. This fever has been distinguished by the Registrar-General only since 1873. In the five years 1876-80 the death-rate from typhus was scarcely 1 per 10,000. In 1881 it was only 0.82. The "fevers" as a whole have steadily diminished in fatality from 16 per 10,000 in 1871 to a minimum of 4.34 in 1881. In the ten years 1871-80 they gave a mean death-rate of only 7 per 10,000, as compared with 20.24 in the preceding ten years. In the five years 1837-41 they maintained a mean of no less than 44½. The hospital treatment of the infectious diseases of children is encouraged by admitting mothers to nurse their own children. Disinfection and washing of clothing and bedding is applied to all these diseases. Contrasting the last ten years with the preceding, there is evidence of substantial improvement in all. In the death-rate from scarlet fever there is a fall from 13 per 10,000 to 10, in measles from 8 to 7, and in whooping-cough from 15 to 12½. In conclusion, it was pointed out that these results were obtained while this policy and practice were being thought out and slowly developed, so that they do not measure the full extent of the benefits which may be reasonably anticipated during the next ten years.

In the discussion which followed, the President, Dr. Thorne, Dr. Squire, Surgeon-General Murray, and Mr. Shirley Murphy took part.

A paper was then read by Mr. M. D. MAKUNA, entitled "Observations on the Pre-eruptive Stage in Small-pox, with Cases," which was followed by a discussion, in which Dr. Squire, Dr. McKellar, Mr. Sweeting, and Mr. Shirley Murphy took part.

EFFECT OF CONCUSSION OF THE SPINE ON THE PULSE.

—Dr. Guinoiseau relates in the *Bulletin de Thérapeutique*, February 28, the case of a man who had received a concussion of the spine from a fall from a carriage on May 9. He recovered, and was able to resume his occupation, which was laborious; but a peculiarity in his pulse remained. Examined on October 8, it was found that his pulse was 49 when recumbent, 73 when seated, and 109 when standing; and on November 1 the numbers were respectively 45, 57, and 77.

INJECTIONS OF BROMIDE OF POTASSIUM IN CHORDEE.—These are strongly recommended by Dr. Cambillard. They are nowise painful, exciting at the most only a little burning. They should be repeated four times in the day, the last time immediately before going to bed. Their effect will be inefficient unless they are retained in the urethra during a minute or two. The formula is—water 100 parts, glycerine 10 parts, bromide of potassium 6, and Rousseau's laudanum (twice as strong as our tr. opii) 2 parts.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members on April 27:—

Batho, Robert, Plymouth.
Chattopadhyay, Aghorechunder, 89, Camden-street, N.W.
Hebb, Richard Grainger, M.D. Cantab., 24, Hart-street, W.C.
Myers, Arthur Thomas, M.D. Cantab., 12, Hereford-gardens, W.
White, William Henry, M.D. Dub., 43, Weymouth-street, W.

The following gentlemen were admitted Licentiates on April 27:—

Booth, Edward Hargrave, Guy's Hospital, S.E.
Butler, William John, 168, Holland-road, W.
Cock, John, Guy's Hospital, S.E.
Daunt, Elliot, Ditchling, Hurstpierpoint.
Giles, Oswald, St. George's Hospital, S.W.
Hamilton, John Harry, 27, Hollywood-road, S.W.
Heelis, Robert, North Lonsdale Hospital, Barrow-in-Furness.
Hunt, Robert, Preston.
Jackson, John Charles, 51, Wellington-road, N.W.
Jones, Albert Edward, Egleyysdan Vicarage, Pontypridd.
Karanjia, Merwanji Dhunjibhai, Surrey Lodge, Herne-hill, S.E.
Linney, William Wyckliffe, 83, Queen's-crescent, N.W.
Macnamara, Hugh Winckworth, Westminster Hospital, S.W.
Marras, Ernest Adrian, 3, Halsey-street, S.W.
Mudge, Thomas, 21, Claremont-square, N.
Muriel, Cecil Jeffery, St. Bartholomew's Hospital, E.C.
Nicholls, John Michael, Yeovil.
Owen, John Morgan, Fishguard, Pembroke.
Perks, Robert Howell, Guy's Hospital, S.E.
Petherick, Wallace, 16, Brompton-crescent, S.W.
Rushworth, Norman, 32, Bernard-street, W.C.
Scott, Alfred, 18, Lower Rock-gardens, Brighton.
Stokes, Lennard, Blackheath, S.E.
Stretton, John Lionel, St. Bartholomew's Hospital, E.C.
Sutton, John Bland, Middlesex Hospital, W.
Walker, Francis John, Spilsby.
Waller, Theodore Harry, 62, Guilford-street, W.C.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 27th ult., and when eligible will be admitted to the Pass Examination, viz.:—

Allott, James H. L., student of the Edinburgh School.
Dyson, Thomas E., of the Edinburgh School.
Frost, John K., of the Middlesex Hospital.
Gill, Edwin, of St. Bartholomew's Hospital.
Harsant, Joseph G., of Guy's Hospital.
Hoffmeister, George B., of St. Bartholomew's Hospital.
Hunter, George H., of University College Hospital.
Inman, George A. F., of King's College Hospital.
Lake, Richard, of St. Thomas's Hospital.
Lawry, Thomas S., of the Edinburgh School.
Lermitte, Charles G., of King's College Hospital.
Rugg, George Lewis, of King's College Hospital.
Stevens, James J. W., of St. Bartholomew's Hospital.
Thomas, Thomas W., of University College Hospital.
Thomas, William E., of the London Hospital.
Tuke, George J. A., of University College Hospital.
Way, Lewis, of King's College Hospital.
Williams, Herbert, of St. Bartholomew's Hospital.
Williams, James E., of St. Bartholomew's Hospital.
Wilson, John G., of St. Bartholomew's Hospital.
Wilson, Samuel H., of the Edinburgh School.

Three candidates were rejected. The following gentlemen passed on the 28th inst., viz.:—

Brooks, J. Pratt, student of King's College Hospital.
Chill, Edwin A., of the Edinburgh School.
Craig, James, of the Edinburgh School.
Day, Francis W. H., of University College Hospital.
Helme, Thomas A., of University College Hospital.
Humphreys, Charles E., of the London Hospital.
Kent, Herbert A., of St. George's Hospital.
Lucas, Charles A., of St. Thomas's Hospital.
McLeod, James, of the Edinburgh School.
Moose, Walter F., of St. Bartholomew's Hospital.
Newbolt, G. Palmerston, of St. Bartholomew's Hospital.
Palmer, Sidney J., of St. Bartholomew's Hospital.
Parr, Arthur E., of King's College Hospital.
Schade, Julius, of University College Hospital.
Thomson, Walter S., of the Middlesex Hospital.
Vassie, Richard, of the Edinburgh School.
Walker, H. Victor, of St. Bartholomew's Hospital.
Walker, Norman H., of the Edinburgh School.
Wetwan, William A., of the London Hospital.

Five candidates were rejected, including two for six months. The following gentlemen passed on the 1st inst., viz.:—

Adie, Joseph R., student of University College Hospital.
Alcock, Samuel K., of St. Bartholomew's Hospital.
Brown, Edward V., of St. Bartholomew's Hospital.
Dimmock, Augustus F., of King's College Hospital.
Donald, Archibald, of the Edinburgh School.
Ferguson, James Haig, of the Edinburgh School.
Fowler, John B., of University College Hospital.
Gell, Henry W., of St. Bartholomew's Hospital.
Hildyard, Robert L., of King's College Hospital.
Johnson, Obadiah, of King's College Hospital.
Kerby, Robert J., of Guy's Hospital.

Lloyd, Henry S., student of the Edinburgh School.
O'Connor, Edward K., of University College Hospital.
Roberts, Leonard, of St. Mary's Hospital.
Ross, Chisholm, of the Edinburgh School.
Smith, Lloyd G., of the Edinburgh School.
Wrigley, Robert, of St. Bartholomew's Hospital.

Seven candidates were rejected. The following gentlemen passed on the 2nd inst., viz.:—

Adam, Maughan Mercer, student of St. George's Hospital.
Austin, Herbert W., of St. Bartholomew's Hospital.
Parker, Theodore H., of the Edinburgh School.
Batt, Ernest E., of University College Hospital.
Bent, George, of St. Thomas's Hospital.
Boyd, Joseph T., of the Westminster Hospital.
Burn, Thomas W. R., of St. Bartholomew's Hospital.
Curnock, Wesley, of the London Hospital.
Dale, William K., of King's College Hospital.
Gilbert, Clarence E. L., of St. Mary's Hospital.
Guiding, Lansdown M., of the Middlesex Hospital.
Jack, W. D. Brydone, of the Edinburgh School.
Jackson, Percy V., of the London Hospital.
Johnson, George H., of St. George's Hospital.
Macfadyen, Allan, of the Edinburgh School.
Mathews, Frank E., of St. Bartholomew's Hospital.
Nicholson, Henry G., of the Middlesex Hospital.
Paul, Edmund W., of the Middlesex Hospital.
Pollard, Reginald, of St. Bartholomew's Hospital.
Turner, Philip D., of University College Hospital.
Wilding, James, of the Westminster Hospital.

Three candidates were rejected. The following gentlemen passed on the 3rd inst.:—

Blight, John H., student of Guy's Hospital.
Burns, S. Brougham, of the Edinburgh School.
Cocking, William T., of University College Hospital.
Courteen, Raymond, of the Westminster Hospital.
Crowle, Thomas H. R., of University College Hospital.
Cundell, William H., of St. Mary's Hospital.
Dumbleton, Charles E., B.A. Cantab., of the Middlesex Hospital.
Forbes, Norman H., of the Middlesex Hospital.
Freeman, Ernest C., of St. Thomas's Hospital.
Fuller, Arthur, of the Edinburgh School.
Haldane, John S., of the Edinburgh School.
Langridge, Frank W., of Guy's Hospital.
Lees, William, of University College Hospital.
Lewis, Percy G., of King's College Hospital.
Nieuwoudt, Gerrit, of the Edinburgh School.
Penny, Edmund J., of the Middlesex Hospital.
Prall, Samuel E., of Guy's Hospital.
Price, William L., of the Edinburgh School.
Sellick, James H., of Guy's Hospital.

Five candidates were rejected.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 27:—

Blumplied, John William, Jersey.
Brown, Richard, Blaydon-on-Tyne.
Hart, Herbert Wheatley, 77, Upper Richmond-road, Putney.
Smith, Wm. Arthur Winwood, Kensington-gardens-square, W.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Beau, William Henry, Charing-cross Hospital.
Carwell, John M., London Hospital.
Doyle, Robert W., St. George's Hospital.
Holdsworth, William, Leeds Hospital.
Peskett, Alfred F., London Hospital.
Pittard, Marmaduke, Charing-cross Hospital.

At the Preliminary Examinations in Arts, held at the Hall of the Society on April 20 and 21, 134 candidates presented themselves, of whom 62 were rejected, and the following 72 passed and received certificates of proficiency in General Education, viz.:—

In the First Class, in order of merit—

R. M. M. Hicks-Beach and J. G. Carter.

In the Second Class, in alphabetical order—

A. E. Barlow, N. D. Best, W. G. Beyts, S. Bingham, E. H. Blake, R. T. H. Bodilly, R. J. Braye, H. E. D. Brockman, R. P. Brooks, Charles Brown, Edgar Cane, Wm. H. Charles, H. Cockerton, T. S. Coghlan, H. A. Debenham, J. Dellewy, H. B. Densham, R. W. Dickinson, R. J. Douglas, C. A. Duckett, W. R. Duncker, Edw. Price Furber, J. A. W. Gentles, F. Gilpin, A. E. Gresham, G. P. V. Grey, H. O. W. Harris, C. Williams Hayward, G. L. Hill, R. Hitchings, A. H. Hoffman, C. W. Hogarth, N. R. House, H. Ingle, W. M. M. Jackson, C. Henry James, J. F. W. Jewell, W. H. Lewis, F. H. Lowe, W. A. Loxton, W. L. Mathias, H. Meggett, E. W. Morris, J. Naylor, F. A. W. Nicholas, J. Nixon, A. H. Nott, C. P. O'Connor, G. S. Olivey, T. E. Pallett, C. O. Parsons, E. F. Pratt, H. N. Pullan, W. G. Reilly, E. S. Robinson, L. Salter, H. F. S. Saudifer, R. Shannon, E. C. Stabb, W. E. Sturge-Jones, A. M. Sturges, R. F. Thomas, S. A. Tidy, F. W. Toms, A. H. Vernon, A. H. Ward, J. K. Warry, A. F. Wilson, J. A. Wood, and G. C. W. Wright.

The following were also approved in Elementary Mechanics, viz.:—

R. P. Brooks, J. C. Carter, W. R. Duncker, C. W. Hayward, A. H. Vernon, J. K. Warry, and Ralph Hodgson.

UNIVERSITY OF DURHAM.—At the First Examination for the degree of Bachelor in Medicine, held during the last week of March, 1882, the following candidates satisfied the Examiners:—

Cornelius C. Caleb (Second Class Honours); F. M. Blackwood; Percy Brown, M.R.C.S., L.S.A.; Fred. Bryan; W. R. Edwards; F. W. Giles, M.R.C.S., L.S.A.; Thomas E. Gordon; F. Greenwood, M.R.C.S.; J. C. Grinling, M.R.C.S.; George Rome Hall; Alexander Harper; J. Hillstead; H. M. Hughes; A. G. Laidler; A. E. Larking; T. H. Openshaw, M.R.C.S., L.S.A.; J. S. Revely; G. W. Richards; E. W. Simmons; M. T. Wakefield; James Watson; S. Welch, M.R.C.S.; W. H. Wigham; G. G. D. Willett, M.R.C.S.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BENSON, ERNEST W., M.R.C.S., L.S.A., B.A. Cantab.—Assistant House-Surgeon to King's College Hospital.

BOOBYER, PHILIP, M.R.C.S.—House-Accoucheur to King's College Hospital.

CROOKSHANK, EDGAR M., M.R.C.S.—House-Surgeon to King's College Hospital.

POLLARD, JOSEPH, M.R.C.S., L.S.A., M.A. Cantab.—House-Surgeon to Professor Lister, at King's College Hospital.

RALBETH, SAMUEL, L.S.A.—House-Physician to King's College Hospital.

STIVENS, BERTRAM H. L., M.R.C.S.—Assistant House-Accoucheur to King's College Hospital.

THOMSON, ST. CLAIR, M.R.C.S., L.S.A.—Assistant House-Physician to King's College Hospital.

WORTS, EDWIN, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A.—Surgeon to the Essex and Colchester General Hospital, *vice* Roger Sturley Nunn, M.R.C.S. Eng., deceased.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Staff-surgeon James Fitzgerald Parr has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet, with seniority of April 19, 1882.

BIRTHS.

ADAM.—On April 29, at 70, Fernhead-road, St. Peter's-park, the wife of C. Denovan Adam, L.R.C.P., M.R.C.S., of a daughter.

COKE.—On April 29, at Whitfield House, Ashford, Kent, the wife of William Harriott Coke, L.R.C.P., M.R.C.S., of a son.

COOMBS.—On April 30, at Redburn, Spring Grove, St. Cuthbert's, Bedford, the wife of Rowland H. Coombs, L.R.C.P., M.R.C.S., of a son.

FRANCIS.—On April 21, at Brecknock House, Bourton, Dorset, the wife of George P. Francis, L.R.C.S., L.A.H., of a son.

KING.—On April 2, at Madras, the wife of Walter Gawen King, M.B., Acting Assistant-Physician, General Hospital, and Professor of Hygiene, Medical College, Madras, of a son.

MAUNSELL.—On April 18, at Halifax, Nova Scotia, the wife of T. Maunsell, Surgeon-Major Army Medical Department, of a son.

O'HARA.—On May 1, at Bangalore, India, the wife of Surgeon A. J. O'Hara, A.M.D., of a son.

MARRIAGES.

BENNETT-THOMAS.—On April 27, at Palampur, Kangra Valley, Surgeon-Major J. Bennett, M.D., H.M. Bengal Army, to Sophia Julia, daughter of David Thomas, Esq., of Watton House, Brecon.

CLARKE-GALE.—On April 27, at Canterbury, James Ferrier Clarke, L.K. & Q.C.P. Ire., of Mitcham, Surrey, to Marion, daughter of Fredk. Gale, Esq., of Herne Hill.

GREENE-DOWNES.—On April 29, at Rickmansworth, Reginald Latimer Wellington Greene, L.R.C.P., of Stratford-on-Avon, to Ethel Mauney, daughter of the late Richard Izod Downes, Esq.

HALLILAY-SLADEN.—On April 20, at Dorking, John Hallilay, M.R.C.S., of Leeds, to Emma Dora, daughter of T. S. Sladen, Esq., of Grove House, Dorking.

JACKSON-BILNEY.—On April 27, at Barnstaple, North Devon, Henry Jackson, M.R.C.S., of Barnstaple, to Rose Harriet, daughter of James Bilney, Esq., of Barnstaple.

LITHGOW-CURZON.—On April 29, at Aldershot, T. G. Lithgow, L.R.C.P., of Farnborough, to Harriet Augusta, daughter of Colonel the Hon. E. G. Curzon.

PAISLEY-DOUGLAS.—On April 27, at Workington, Cumberland, William Paisley, solicitor, of Workington, to Jane Elizabeth, daughter of Thomas S. Douglas, M.R.C.S., of Allonby House, Workington.

SAYAOE-SUTTON.—At Kippington, G. H. Sayaoe, M.D., M.R.C.P., etc., of Bethlem Royal Hospital, to Adelaide Mary, eldest daughter of H. G. Sutton, M.B., F.R.C.P., of Finsbury-square.

STOKES-GLASSE.—On April 27, at St. Peter-Port, Guernsey, Captain Radclyffe Haldane Stokes, 2nd Battalion King's Own Infantry, D.A.C.G., to Alice, daughter of Henry D. Glasse, Inspector-General of Hospitals (retired), Bombay Army.

TWIGG-MORRIS.—On April 25, at Harrow-on-the-Hill, George Despard Twigg, Surgeon Royal Navy, to Mary Anne Edith, daughter of the late Lieut.-Colonel William John Morris, H.M. Bombay Army.

TWINING-HOUNSHAM.—On April 27, at Dalston, Alfred Hughes Twining, M.R.C.S., of Salcombe, South Devon, to Georgiana Edith, daughter of the late J. B. Hounsham, Esq., of Ipswich.

DEATHS.

BELL, CECILIA BARBARA CRAIGIE, wife of Benjamin Bell, F.R.C.S., at 18, Coates-crescent, Edinburgh, on April 28.

BIGGS, ROBERT, M.R.C.S., at Green Park, Bath, on April 27.

BRAMWELL, JOHN BYROM, M.D., at Tynemouth, on April 23, aged 59.

JAMESON, WILLIAM, Deputy Surgeon-General C.I.E., at Dehra Doon, N.W.P., India, on March 13.

LIGHTON, HENRY ALFRED HAMILTON, M.R.C.S., of 138, Cromwell-road, South Kensington, at Madeira, on May 2, in his 31st year.

NEALE, JENNIE, wife of J. Headley Neale, Esq., of the Edinburgh University School of Medicine, and daughter of John Jackson, L.R.C.P. M.R.C.S., of Somerby, Leicestershire, at 23, Archibald-place, Edinburgh on April 30, aged 26.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon. Candidates must send certificates of registration, and also satisfactory testimonials of ability and good moral conduct. Applications to be addressed to the Secretary of the Hospital, on or before May 4. The election takes place on May 10.

CHARING-CROSS HOSPITAL, WEST STRAND, W.C.—Assistant-Surgeon. (For particulars see *Advertisement*.)

CITY OF LONDON LUNATIC ASYLUM, STONE, NEAR DARTFORD, KENT.—Assistant Medical Officer. (For particulars see *Advertisement*.)

GOVERNMENT RAILWAY SERVICE, CAPE OF GOOD HOPE.—Medical Officer. (For particulars see *Advertisement*.)

PORTSMOUTH LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be doubly qualified and registered, and not above thirty years of age. Preference will be given to candidates experienced in asylum duties. Applications, with testimonials, to be addressed to the Chairman of the Committee by May 8.

ROYAL HANTS COUNTY HOSPITAL, WINCHESTER.—House-Surgeon. Candidates must possess the diploma from the Royal College of Surgeons of England, or a surgical diploma of a Royal College or of a University in Scotland or Ireland, and also either a licence from the Royal College of Physicians of London, or from the Apothecaries' Society. They must also produce unexceptionable testimonials as to moral character. Applications, with testimonials, to be addressed to the Secretary, at the Hospital, on or before May 6.

SOUTH YORKSHIRE COUNTY LUNATIC ASYLUM, WADSLEY, NEAR SHEFFIELD.—Assistant Medical Officer. Candidates must be registered in medicine and surgery, under thirty years of age, and unmarried. Applications, with testimonials, to be sent to Dr. Mitchell, the Superintendent, on or before May 8.

WEST LONDON HOSPITAL, HAMMERSMITH-ROAD, W.—House-Surgeon. Candidates must be registered under the Medical Act, and be unmarried. They are requested to attend the House-Committee meeting on May 8, at 10.30 a.m. Applications and testimonials to be sent to R. J. Gilbert, Secretary, by May 6.

WILTS COUNTY ASYLUM, DEVIZES.—Assistant Medical Officer. Candidates must be duly qualified registered medical practitioners and unmarried. Applications, stating age, accompanied by not more than six recent testimonials, to be sent to the Medical Superintendent at the Asylum, on or before May 17.

UNION AND PAROCHIAL MEDICAL SERVICE.

APPOINTMENTS.

Aylesbury Union.—Herbert G. Lee, M.R.C.S. Eng., L.S.A., M.D. St. And., to the Sixth District.

Rotherham Union.—Alfred Ward, B.M., M.C., to the Laughton District.

West Derby Union.—Ralph Worrall, M.D., M.Ch. Q.U.Ire., to the First Everton District. Robert S. Archer, M.B., M.Ch. Dub., to the Second Everton District. William M. Prees, M.R.C.S. Eng., L.R.C.P. Edin., to the Third Everton District.

SOUTH LONDON SCHOOL OF PHARMACY.—The prizes awarded at the examinations held on April 4, 5, 13, and 15, were presented to the following successful competitors on Tuesday, the 25th ult.:—Medals—Chemistry, Mr. Forster; Botany, Mr. Woollons; Materia Medica, Mr. Burton; Pharmacy and Practical Dispensing, Mr. Birkbeck. Certificates—Chemistry, Mr. Woollons; Botany, Mr. Forster; Materia Medica, Mr. Dillon; Pharmacy and Practical Dispensing, Mr. Burton. Extra certificates of merit were awarded to Messrs. Hornby, Roberts, Davies, Heald, Reade, Oldershaw, Brunton, Naylor, Capper, Wright, Tucker, and Taylor.

FLUORIC ACID FOR ENLARGED SPLEEN.—Dr. Coates read at the Calcutta Medical Society (*Indian Medical Gazette*, April 1) notes of six cases of enlarged spleen which he had treated by ammonium fluoride. He had been led to administer this in consequence of the success obtained by Dr. Woakes in treating seventeen cases of bronchocele by means of a half-per-cent. solution of fluoric acid in doses of fifteen minims to two drachms. Dr. Coates employed fluoride of ammonium in the same doses, and reports that rapid reduction in the size of the spleen ensued.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 29, 1882.

BIRTHS.

Births of Boys, 1294; Girls, 1196; Total, 2490.
Corrected weekly average in the 10 years 1872-81, 2761·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	784	736	1520
Weekly average of the ten years 1872-81, } corrected to increased population ...	842·0	782·9	1624·9
Deaths of people aged 80 and upwards ...	...	...	58

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric(or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West	669633	...	14	2	...	30	...	2	...	4
North	905947	...	11	10	6	80	...	3	...	3
Central	282238	...	4	2	2	5	...	2	...	1
East	692738	2	7	3	3	16	...	3	...	2
South	1265927	14	21	10	3	48	...	5	...	4
Total	3816483	16	57	32	14	129	...	15	...	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	29·238 in.
Mean temperature ... ..	...	...	...	...	...	46·5°
Highest point of thermometer ... ..	...	...	...	...	...	59·8°
Lowest point of thermometer ... ..	...	...	...	...	...	35·8°
Mean dew-point temperature ... ..	...	...	...	...	...	42·3°
General direction of wind ... ..	...	...	...	...	...	Variable.
Whole amount of rain in the week ... ..	...	...	...	...	...	1·75 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 29, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending April 29.	Deaths Registered during the week ending April 29.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London	3893272	2490	1520	20·4	59·8	35·8	46·5	8·06	1·75	4·44
Brighton	109595	64	44	21·0	59·0	36·0	47·4	8·55	1·29	3·28
Portsmouth	129916	93	59	23·7	...	...	...	...	...	...
Norwich	83821	53	42	24·7	...	...	...	...	...	...
Plymouth	74449	44	23	16·1	62·5	39·0	49·3	9·61	1·43	3·63
Bristol	210134	123	80	19·9	55·5	36·5	45·9	7·72	2·07	5·26
Wolverhampton	76756	45	27	18·4	55·4	35·3	43·5	6·39	1·45	3·68
Birmingham	408532	294	183	23·4	...	...	...	...	...	...
Leicester	126275	101	40	16·5	57·2	33·8	44·7	7·06	1·29	3·28
Nottingham	193573	127	85	23·7	59·1	31·0	46·5	8·06	0·84	2·13
Derby	83587	53	22	13·7	...	...	...	...	...	...
Birkenhead	86592	49	33	19·9	...	...	...	...	...	...
Liverpool	560377	418	276	25·7	54·5	33·9	45·1	7·28	1·23	3·12
Bolton	106767	70	54	26·4	56·6	33·8	43·2	6·22	2·86	7·26
Manchester	340211	248	192	29·4	...	...	...	...	...	...
Salford	154004	143	90	25·5	...	...	...	...	...	...
Oldham	115572	82	61	27·5	...	...	...	...	...	...
Blackburn	106460	86	49	24·0	...	...	...	...	...	...
Preston	97656	66	52	27·8	...	...	...	...	...	...
Huddersfield	83418	43	31	19·4	...	...	...	...	...	...
Halifax	74713	37	32	22·3	...	...	...	...	...	...
Bradford	188101	112	92	25·5	53·6	36·9	45·2	7·33	1·60	4·06
Leeds	315998	220	155	25·6	55·0	37·0	46·3	7·95	1·00	2·54
Sheffield	290516	233	100	18·0	58·0	34·5	46·0	7·78	1·78	4·52
Hull	158814	118	48	15·8	55·0	36·0	45·3	7·39	1·56	3·96
Sunderland	119035	103	51	22·3	64·0	37·0	47·1	8·39	1·53	3·85
Newcastle	147626	94	46	16·3	...	...	...	...	...	...
Cardiff	83724	55	23	13·8	...	...	...	...	...	...
For 28 towns	8457514	5664	3513	21·7	64·0	31·0	45·9	7·72	1·53	3·89
Edinburgh	232440	131	93	20·9	52·7	32·5	44·0	6·67	0·66	1·68
Glasgow	514048	388	281	28·5	55·0	33·5	45·2	7·33	0·45	1·14
Dublin	348293	203	202	30·3	55·2	29·7	43·5	6·89	0·62	1·57

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·24 in. The highest reading was 29·60 in. on Thursday at noon, and the lowest 28·82 in. on Saturday afternoon.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

“THE LAST OF LAMSON.”

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—“Sir William Harcourt,” you say, “has proved himself a master of vituperation.” In common with other members of the profession, I have read what has been made public in the usual channels of information. I do not call to mind any passage in the communications from the Home Office which show such mastery of vituperation on his part. Will you be kind enough to refer one of the numerous political supporters of Sir William to the evidence which justifies the opinion you give?
April 30. I am, &c., OXONIENSIS.
[Surely our correspondent has not read and inwardly digested Sir William Harcourt’s electioneering speeches! The Home Office had nothing to do with these.—Ed. Med. Times and Gaz.]

Dr. J. Drysdale, Port Chalmers, Otago, New Zealand.—Letter and enclosure received.

Dr. F. I. de Lisle, Napier, New Zealand.—Letter and enclosure received.

H. H., Pimlico.—The donations announced at the recent festival dinner at Willis’s Rooms on behalf of Charing-cross Hospital amounted to £1564.

An Abstainer.—At present magistrates have no power to refuse grocers’ and “off” licences, if certain formalities are carried out. Mr. Fry’s Bill seeks to repeal Section 8 of the Wines and Beer Act, and proposes to give magistrates discretionary powers in all matters of licensing.

Public Baths at Richmond.—The baths formally opened by the Duke of Teck a few days since have been provided by the local authorities at a cost of nearly £8000. Such baths will be a great boon to the inhabitants. It is intended to teach swimming in the two sheets of water within the building, at a price which will be within the means of nearly everybody. From the boating so largely indulged in on the river close at hand, fatal casualties occur, through ignorance of how to float or swim; and it is to be hoped the facility of acquiring, at almost a nominal cost, a knowledge of swimming will be appreciated by the residents of the town and of the immediate locality.

A Gift.—Mr. J. F. Symes, of Axminster, has just presented £1000 to the Devon and Exeter Hospital.

The Celtic Chair: University of Edinburgh.—The endowment of the proposed chair now amounts to £14,000, which would yield about £600 a year. The Council has authorised the Committee to hand the money over to the Senatus, and to proceed to the execution of the deed necessary for the legal constitution of the chair, so that teaching might begin with the next winter session.

A Royal Example.—At the instance of the Empress Augusta, the convalescents at the Augusta Hospital are, without exception, to be provided with a fresh bouquet of flowers placed every morning by their bedside.

An Old Yachtsman.—Great progress has been made of late years in the direction of sobriety among sailors in the merchant service. In the Royal Navy especially is this observable. The Missions to Seamen are vigorously attacking the evil of drink in nearly all the seaports in the country. Within three years the society has enrolled, in forty-seven seaports, over 15,000 seamen as total abstainers. Lapses, of course, will occur, but it is asserted that in the great majority of cases the men adhere to the pledge.

District Nursing for the Poor.—A scheme has been proposed at Leeds, and is obtaining generous public support, to promote the nursing of the sick poor in their own homes, under the auspices of the Leeds Trained Nurses’ Association.

Notification of Infectious Diseases, Liverpool.—On reading the report of Dr. Taylor, the Medical Officer of Health, on the outbreak of fever in Pitt-street, the Chairman of the Health Committee remarked that it confirmed him in his opinion that a great mistake had been made in not pursuing the clause of the Improvement Bill which would have required notification of infectious diseases to be sent by the medical attendants to the Medical Officer of the city.

A Children’s Hospital at Bristol.—It has been decided to erect a hospital for children in this city, at a cost of £14,000. A large amount has already been subscribed to the fund.

Traction Engines on Roads and their Dangers.—An organised and influential movement against the employment of these engines on public highways has been commenced at Sheffield, in consequence of the terrible accident lately caused by one near that town. A public meeting under the presidency of the Mayor has been held, resolutions adopted appointing a deputation to wait on the Home Secretary and the Local Government Board with a memorial against the use of traction engines, and a committee formed to endeavour to secure an amendment in the law regulating the employment of them on public highways.

Liberality: Berlin.—The Administration of the Botanic Garden at Berlin has for some time past granted permits to poor students of medicine, as well as of botany, and others, entitling them to receive gratis every day a specimen of certain plants or flowers, even rare ones.

Inebriety at Middlesbrough.—An official police return, just issued, shows a large increase of drunkenness in the borough. The alleged cause is revived trade. The charges of "drunk and disorderly" during 1881 were 731, in comparison with 449 in the previous year.

The Child's Bath: a Hint.—A fatality has just occurred where the nurse-maid, in presence of children, had half-filled the bath with boiling water, and then proceeded to fetch some cold water. In her absence a boy, fifteen months old, fell over the edge of the bath into the hot water, and was so terribly scalded that he died almost immediately. In preparing warm baths, especially for children, the cold water should be put in first.

Mindful of the Sick.—From the 1st instant the Prussian State railways will, on the presentation of a certificate, convey at reduced rates the sick poor who have been sent to the various baths and therapeutic establishments.

Digestive Bread.—A baker at Cambridge has been fined 20s. by the borough magistrates for selling bread otherwise than by weight. There was a deficiency in three half-quarter loaves sold by the defendant of eleven ounces short of six lbs. The defence was that the article was "digestive," and therefore "fancy" bread; that it required more trouble in the baking than ordinary loaves, and the short weight was due to the elimination of matter which caused indigestion. The law does not recognise any distinction whatever as to "fancy" bread; all descriptions must alike be weighed.

Constantinople.—The International Sanitary Committee is taking precautionary measures against the spread of the plague, which has broken out at Sanjbulagh, in Persian Kurdistan.

The Scottish Meteorological Society.—In the belief that by a systematic study of the atmospheric disturbances which have their origin on the other side of the Atlantic the science of meteorology will be promoted, this Society proposes to undertake the preparation of daily weather charts of the North Atlantic Ocean for the thirteen months beginning on August 1 this year and ending August 31, 1883.

Athletic.—Football was an early and favourite sport with the English. Fitzstephen mentions it among the games of the Londoners in the time of Henry II. Pepys in his "Memoirs," 1664, also speaks of the game.

Bradford Fever Hospital.—The Committee of this institution lately asked the Corporation to increase the payments made for the maintenance of patients sent to the Hospital by order of the Medical Officer of Health, and also to make an annual donation to the funds of the institution, as they do in the case of the Infirmary. The Sanitary Committee, after considering the application, decided that it could not be granted. Their opinion was that 2s. 6d. and 3s. 6d. per day for children and adults, respectively, is as much as can be fairly expected; and as to a donation, that there was no parallel in the cases of the Infirmary and the Fever Hospital, inasmuch as the Sanitary Committee pay according to a fixed scale for persons sent to the Hospital, while the obligation to contribute to the Infirmary was a moral one, as there are frequently workmen of the Corporation inmates of that institution.

COMMUNICATIONS have been received from—

THE SECRETARY OF THE HARVEIAN SOCIETY, London; THE SECRETARY OF THE OPHTHALMOLOGICAL SOCIETY, London; Mr. R. J. GODLEE, London; Dr. PEARSE, Plymouth; THE SECRETARY OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION, London; Dr. LUCAS, Ahmedabad; THE REGISTRAR OF THE UNIVERSITY OF DURHAM; THE SECRETARY OF THE CLINICAL SOCIETY OF LONDON; THE SECRETARY OF THE ROYAL MICROSCOPICAL SOCIETY, London; Mr. CLEMENT LUCAS, London; THE SECRETARY OF THE ROYAL INSTITUTION OF GREAT BRITAIN, London; THE SECRETARY OF THE ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, London; THE SECRETARY OF THE SOUTH LONDON SCHOOL OF PHARMACY, London; THE SECRETARY OF THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN, London; THE SECRETARY OF THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH; THE SECRETARY OF THE SWANSEA PROVIDENT DISPENSARY, Swansea; THE CROWN AGENTS FOR THE COLONIES, London; Dr. MAC CORMAC, Belfast; Dr. WILLIAM DALE, King's Lynn; Dr. BURNET, London; Dr. MCBRIDE, Edinburgh; Dr. F. N. NEWCOMB, London; THE REGISTRAR OF THE ROYAL COLLEGE OF PHYSICIANS, London; Mr. E. L. HUSSEY, Oxford; THE SECRETARY OF THE ODONTOLOGICAL SOCIETY, London; THE DEAN OF THE UNIVERSITY OF EDINBURGH; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Messrs. C. GRIFFIN and Co., London; Dr. CRICHTON BROWNE, London; THE LOCAL GOVERNMENT BOARD, Whitehall; Dr. HANDFIELD JONES, London; Dr. SUTHERLAND, London; Mr. SHIBERS, Wurtzburg; Mr. J. CHATTO, London; Dr. PYE-SMITH, London.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Sunday at Home—Leisure Hour—Friendly Greetings—Girl's Own Paper—Boy's Own Paper—Brain—Le Concours Medical—National Anti-Compulsory Vaccination Reporter—Philadelphia Medical Times—Edinburgh Medical Journal—Chicago Medical Review—American Bookseller—Physician and Surgeon—Glasgow Medical Journal—Monthly Homoeopathic Review—Revue Mensuelle—Birmingham Medical Review—Archives Générales de Médecine—Dublin Journal of Medical Science—Ciencias Médicas—Veterinarian—Nottingham Journal, April 27—Analyst—La Presse Médicale.

BOOKS, ETC., RECEIVED—

True Aneurism of the Brachial Artery at its Upper Third, by L. Emmett Holt, A.M., M.D., New York—Étude sur les Déterminations Gastriques de la Fièvre Typhoïde, par le Dr. Anatole Chauffard—Des Températures Générale et Locale dans les Maladies du Cœur, par le Dr. Zacharie-Louis Sabatier—The Truth about Opium, by W. H. Brereton—On the Meteorology of Cannes, by William Marcet, M.D., F.R.S., F.M.S.—Quack Doctors, by James S. Gurrari—Untersuchungen über Verbrecher-Gehirne, von Dr. Max Flesch—Untersuchungen über die Grundsubstanz des Hyalinen Knorpels, von Dr. Max Flesch.

APPOINTMENTS FOR THE WEEK.

May 6. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Mr. F. Pollock, "On the History of the Science of Politics."

8. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
ROYAL INSTITUTION, 5 p.m. General Monthly Meeting.

9. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
ROYAL INSTITUTION, 3 p.m. Dr. E. B. Tylor, "On the History of Customs and Beliefs."
ANTHROPOLOGICAL INSTITUTE, 8 p.m. Dr. J. Beddoe, "On the Evidence of Surnames as to Ethnological Changes in England." Mr. J. Park Harrison, "On the Survival of Certain Racial Features in the Population of the British Isles at the Present Day."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. Makuna, "On the Ectrotic Treatment of Varicoles in Small-pox." Mr. W. J. Tivy (of Clifton), "On Double Inguinal Hernia treated by Wood's Radical Cure."

10. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Douglas Powell.
ROYAL MICROSCOPICAL SOCIETY, 8 p.m. Ordinary Meeting.

11. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.
ROYAL INSTITUTION, 3 p.m. Professor Dewar, "On the Metals."
OPHTHALMOLOGICAL SOCIETY, 8½ p.m. Dr. Brailley (1) Microscopical Specimens from Mr. Mason's Specimen of Sclero-Corneal Tumour; (2) Specimen of Disease of Optic Nerve in a Case of Retinal Detachment. Mr. Snell, "On a Case of Sympathetic Ophthalmitis following Enucleation." Mr. Adams Frost, "On a Case of Sympathetic Ophthalmitis following Enucleation." Mr. Anderson Critchett, "On a Case of Bony Tumour of Conjunctiva." Mr. Oglesby, "On Miner's Nystagmus." Mr. Swanzy, (1) "On Detachment of Vitreous Humour causing Blindness;" (2) "On a Case of Primary Tubercle of Iris." Mr. Mules, "On a Case of Tubercular Inflammation of Eyeball." Mr. Adams Frost, "On a Case of Intraocular Haemorrhage after External Injury of the Eye." Mr. Lang and Dr. W. A. Fitzgerald, (1) "On the Movements of the Eyelids in Relation to the Movements of the Eyes;" (2) "On a Case of Homonymous Insular Scotomata." Mr. C. E. Fitzgerald, "Ophthalmological Notes." Mr. Jules—A Refraction Ophthalmoscope (card). Mr. A. H. Benson—Case of Extreme Tortuosity of Retinal Vessels without Disease (card). Living Specimens (8 p.m.): Dr. Sansom—Exophthalmos without Thyroid or Cardiac Symptoms. Mr. McHardy—(1) Case of Transportation of Skin two months after Operation; (2) Black Cataract. Mr. Mackinlay—Case of Teale's Operation for Symblepharon.
HARVEIAN SOCIETY, 9 p.m. Dr. John Williams, "On a Fatal Case of Oophorectomy." Mr. Noble Smith, "On the Treatment of Caries of the Vertebra."

12. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.
CLINICAL SOCIETY OF LONDON, 8½ p.m. Mr. Thomas Smith, "On a Case of Aneurismal Varix of the Forearm" (patient will be shown). Mr. Holmes, (1) "On Removal of an Epitheliomatous Ulcer of the Leg by Scraping;" (2) "On Removal of Multiple Loose Cartilages from the Knee-Joint." Dr. Althaus, "On a Case of Cerebro-Spinal Syphilis." Dr. Ord, "On a Case of Disorder of Movement following Hemiplegia" (patient will be shown).
ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Mr. A. G. Vernon Harcourt, "On the Relative Value of Different Modes of Lighting."

ORIGINAL LECTURES.

THE CROONIAN LECTURES
ON
THE CLIMATE AND FEVERS OF INDIA.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., etc.

LECTURE II.—PART II.

THE SYMPTOMS AND COURSE OF MALARIAL DISEASES.

Remittent Fever.

REMITTENT fever prevails throughout India; and causes much of the mortality ascribed to malaria; it is merely another expression of malarial action, and may commence or end as ague. Intermittents may become irregular, the intermissions being incomplete—some rise of temperature or malaise remaining until the return of the paroxysm. In other cases a period of remitting fever alternates with intervals of complete intermission, and it is not uncommon to hear persons say that they have constant fever for three or four days or a week, which then leaves them, to return in an irregularly intermittent form. These might be called irregular intermittents, and they may pass gradually into true remittent, which is a more serious matter, for when it occurs in certain localities and seasons, it is a most dangerous and fatal disease. My first experience of it on the North-East frontier, in natives who had been exposed to the evil influences of the low-lying and intensely malarious country situated between the Cossyah hills and the plains of Sylhet on one side, and Assam on the other, in the valley of the Brahmaputra, taught me its severity, as also did personal experience as well as observation: the cases often rapidly passed into the adynamic condition and were speedily fatal. They were not unfrequently brought in in a semi-unconscious condition, soon to pass into complete stupor, with tongue nearly black with sordes, and then death: it is to this form that the term jungle fever and other local designations are applied. Of course all jungle fever is not so severe as this, though in certain places and seasons such cases are common. The various local types, no doubt, present some differences in their features. There may be a more decided icteric tinge, dysentery, diarrhoea, vomiting, choleraic purging, or other indications of gastro-intestinal complication, may be present, and give rise to such terms as bilious-remittent, malarial dysentery, or choleraic fever. The fever of Peshawur, for example, may present some features that distinguish it from that of Bengal or the Deccan, and so on; but these only point to varying effects of one, not to the operation of essentially different causes. The malaria (I use the term conventionally) of an arid district may act differently from that of the jungle or swamp, and, considering the different climatic conditions under which it originates and operates, it is not strange if it be so; but it is a difference of degree only, for the principal features of the fever are identical, and anti-periodic remedies, as a rule, are efficacious in relieving them.

Remittent fever is liable to many complications, and hence has been described as simple and complicated. The period of incubation seems to depend on similar causes to those that determine intensity. Heat, and concentration of malarial poison, may in certain cases act almost immediately; in others, when there is less activity, a few days, to a fortnight or more, may elapse. In my own case it must have been a fortnight or more after exposure in the Assam Terai before fever came on. In the uncomplicated form in a previously healthy person it generally terminates favourably in eight or ten days; but when it is the result of exposure to more concentrated miasm at the season of greatest activity, or when complicated, it is of longer duration, may become dangerous and even fatal. In slight cases it is sometimes difficult to say whether it should be called remittent or irregular intermittent (Burton Brown says: "Remittent fever is generally either a very severe subintrant or more

often intermittent fever with some visceral complication"); but in its worst forms it assumes typhoid conditions of the most marked character.

Its accession is preceded by languor, malaise, chills, cold feeling in the back and loins, loss of appetite, pain in the epigastrium, head, back, and limbs, vertigo, faintness, nausea or vomiting, the tongue is coated with yellowish or white fur, the pulse is irregular—conditions that may continue for some days before the cold stage (which is not so well pronounced as that of an intermittent, and is sometimes altogether absent) is developed, which gives way to heat, thirst, dryness of skin, severe headache, quick, hard pulse, pain in the eyeballs, and insomnia; the temperature rising to 104°, 106°, 107°; wandering or delirium may set in, and the breathing become oppressed. This continues for some hours, six or more, often much more, until the remission sets in; the skin then becomes moist, the pulse softer, the pain abates, the sufferer is relieved, perhaps sleeps, though want of sleep is generally a distressing symptom. The remission lasts for six to thirty-six hours or more, when the fever returns as before. The first exacerbation is often the longest, but the second is frequently more severe, and may set in without any premonitory chills or cold stage. If not now checked, succeeding paroxysms may become more severe, with scarcely any remission; and a state of great prostration, with delirium, unconsciousness, a brown dry tongue, sordes, hiccough, supervene; yellowness of the skin, and vomiting of bile and altered blood (black vomit), sometimes preceding death. The exacerbation may recur once or twice daily, but there is no regularity; the remission nearly always *takes place in the morning*, and is sometimes so slight that it may be overlooked. The character of the remissions, and the early or deferred return of the exacerbations, are indications of the probable severity or lenity of the attack. Well-marked remissions, free diaphoresis, diminished temperature and headache or cerebral symptoms, are favourable indications; whereas, higher fever, ill-defined remissions, accelerated exacerbations, with delirium, coma, and typhoid symptoms, vomiting of blood and bile, or symptoms of collapse appearing as the hot stage is passing away, indicate great danger. The premonitory symptoms are like those preceding ordinary ague, but the first attack sometimes comes on suddenly, with very little, if any, premonitory warning, and almost without any cold stage before high fever supervenes. But, as far as my experience goes, it generally happens that there *have* been previous attacks of intermittent with imperfect and irregular intermissions; or in very malarious localities the first paroxysm of ague has been succeeded by a remission only. In favourable cases amendment begins in from six to eight days or sooner; the remissions become more complete; the patient sweats freely, the tongue commences to clean and moisten at the edges, the sordes disappear, the headache and thirst diminish, and the appetite begins to return; he perhaps sleeps, and then gradually regains his strength. Such is the state of things in a simple attack of remittent, and the prognosis is generally favourable; but the brain, the lungs, or the abdominal viscera may be implicated, causing serious complications: in certain circumstances the symptoms are so sudden and severe as to be mistaken for insolation; the patient, being overwhelmed at once by the poison, passes rapidly into a state of fatal coma. I have seen such cases in India, and some were recorded by Mr. Eccles, a surgeon of the Stafford House Ambulance in the Russo-Turkish war, who accompanied a body of men on a long march in which they were exposed to the action of intense malaria, and great diurnal vicissitudes of temperature. The type of fever will depend a good deal on the individual who suffers as well as on the circumstances under which he is attacked. In the robust and plethoric young Englishman it will be the sthenic, or, as it has been erroneously called, inflammatory; the fever high, the pulse full and strong, racking headache, nausea, great thirst, and delirium, which will probably be followed by a well-marked remission and corresponding exhaustion. Such cases are sometimes complicated by exposure to great solar heat, or by alcohol. In less robust individuals there may be a tendency to the adynamic form; the exacerbations reduplicate, the nervous power becomes depressed, and the patient passes into a low tremulous typhoid state, or the fever assumes a continued form. In intermittent fever sudden collapse may occur, and also in this form of remittent; whilst in the sthenic forms, cerebral symptoms, suggestive of apoplexy or

effusion, may appear; but it is well to bear in mind that such symptoms may be a result of the direct action of the poison on the nerve-centres, and that convulsions, especially in children, as pointed out by Dr. Payne, are peculiarly likely to be so caused; such, indeed, being examples of the so-called masked malaria. All acute cerebral symptoms, however, occurring as a result of malarial poisoning, are not of this character; inflammatory cerebral mischief does occur occasionally, and the delirium that passes into coma may be so caused, but the history of the case would encourage hope that the symptoms depended on malarial disturbance. The lungs and bronchi are liable to be implicated, like the abdominal viscera; congestion and inflammation may occur, and natives of India during the cold season are very prone so to suffer. Mr. Partridge, an officer of large experience in Assam, says: "I have noticed that, after any sudden change in temperature, fever becomes very prevalent amongst the (tea) garden coolies. In the rains we may have an interval of hot dry (dry for Assam) weather, and then a sudden fall of rain accompanied with a cold wind; the sick list is at once doubled and trebled with fevers and pulmonary complications." The liver may be gravely complicated, and jaundice is no uncommon accompaniment, either as the result of mechanical obstruction of the ducts, or of arrested function. Bilious vomiting and epigastric tenderness are of frequent occurrence; the spleen is not so much enlarged, unless there have been previous malarial poisoning, nor is there the same amount of cachexia and anæmia in remittent as in intermittent, unless, indeed, the disease have continued long or recurred often. The kidneys may share in the general abdominal congestion, but albumen in the urine is comparatively rare in remittent fever, whilst in the yellow fever of the West Indies it is said to be of constant occurrence. In chronic malarial poisoning, whatever form it may assume, the kidneys may suffer organically, and chronic Bright's disease result. Rheumatism is a frequent complication, especially in the natives, but it occurs also among Europeans, and I not unfrequently find it to be one of the most troublesome symptoms in those who return to England for the recovery of health. It is chronic and affects the extremities and back, but not the heart, unless it have preceded and been independent of the fever; it may be of the ordinary form, complicating the fever, but sometimes it is part of the disease and is another mode in which the effects of malaria are expressed. Dyspepsia and irritability of the stomach are not unfrequent complications of chronic cases, causing debility and cachexia. The usual symptoms—anorexia, flatulence, irregular bowels, irritability, nausea, eructation or vomiting, coated tongue with red edges, occasionally diarrhoea and abdominal tenderness—are present.

Pernicious Forms.

The conditions to which the term "pernicious" is applied occur either in the intermittent or remittent attacks of malarial fevers, as intensifications of any of the stages. The cold stage may be unduly prolonged and occupy the whole paroxysm, the patient either sinking, as in the collapse of cholera, or if he recover, reaction taking place slowly. The hot stage may be intensified and prolonged, the patient becoming delirious, comatose, convulsed, and the condition resembles that of thermic fever, or apoplexy; stupor begins with the commencement of the paroxysms, and gradually deepens into complete coma and death, or the symptoms may gradually disappear as the period of the paroxysm passes away. Again, the sweating stage may be very profuse and prolonged, the pulse may sink, and the depression become so great, that death may take place from exhaustion and syncope; or, after the sweating stage has passed, extreme depression, during which the patient is intelligent but hardly sensible of his own weakness, when any exertion or even the erect posture is attended with danger. These are the principal dangers with which I am acquainted. There are many other conditions involving the cerebro-spinal centres and abdominal viscera, of the nature of complications arising out of the general disturbance produced by the malaria rather than by its direct action. I am unable to say what is the immediate cause of the supervention of pernicious symptoms; they sometimes come on suddenly with little warning, after one or two ordinary paroxysms, probably from the intensity of the poison, and in those who have been unusually debilitated by what has already occurred. It has often occurred to me that in the damp heat of the hot months in certain

parts of India, these symptoms which depend on cerebral disturbance are most likely to occur.

Masked Malarial Fevers.

To some of the conditions I have described, the term "masked fever" has been given: neuralgia with imperfectly developed fever, hot hands, aching in the limbs, pain extending along the course of the great nerve-trunks in the limbs, gastralgia (often causing intense pain), and various other forms of disturbed innervation, anæsthesia, paresis, functional derangement of the liver and other abdominal viscera, nervous irritability, dyspepsia, asthma, hæmaturia, bronchial irritation, insomnia, and a variety of other symptoms, all pointing to the effects of malarial poison on the nervous system—indeed, all the more severe symptoms that characterise the pernicious attacks. The symptoms may be those of collapse, as in cholera, or those of apoplexy, epilepsy, cerebral effusion, hæmorrhage from stomach, bladder, bowel, or kidney, and so on; but the history of the patient, and the circumstances under which the symptoms occur, indicate their true nature and their malarial origin, and the treatment, which generally is the use of quinine or some other of the antiperiodic remedies.

These phenomena have generally a periodic tendency, and, like other malarial symptoms, are influenced by the state of the weather, as the natives think at the full or new moon. This subject has been discussed by Indian writers in the *Medical and Physical Transactions of Bombay*, by Mr. Murray and Dr. Peet. Morehead also refers to it ("Researches on Disease in India"), and says that it is a familiar fact for the hospital physician in India to find several of the asthenic inmates in his wards affected by febrile disease on the same day, though all were free previously, and that these days were coincident with the lunar changes, and that those who have suffered from malarious fever suffered from recurrences on those days. But, as he says—very rightly, I think—as it was generally observed that there were atmospheric changes on those days, the fever was due to them, not to the moon. Such is probably the real explanation of the so-called sol-lunar influence, advocated by Dr. Balfour, who declared that the meridional periods, diurnal and nocturnal, were distinguished by remarkable changes or paroxysms in the state of the weather, and that these were most remarkable at the lunar periods.

Malarial Cachexia.

A frequent result of exposure to malarial influences and of repeated attacks of periodic fever is anæmia, and even though there may have been no fever, an enfeebled condition of the health, often a profound state of cachexia, with which are associated structural changes in the abdominal viscera and notably of the spleen. The sufferer has a puffy, blanched face, pearly conjunctivæ and lips, short and hurried respiration, weak cardiac action, hæmic murmurs, and a feeble pulse, a tumid abdomen, not unfrequently dropsy, œdematous lungs and areolar tissue generally, wasted muscles, and a bronzed discoloured skin, with a large and probably hardened spleen extending down towards, sometimes as far as, the iliac fossa (ague-cake). I describe a well-marked case, and such is common enough in the notoriously malarial regions of India, where the whole population present more or less of this appearance, and where the physical degeneration is accompanied by an almost equally well marked mental and physical torpor; depression of energy being characteristic signs of this state. I have known individuals return to this country too late to profit by the change. I have also seen a profound state of malarial anæmia in persons who, having resided for some years in malarial districts, were found to be free from splenic or hepatic enlargement, but in whom the kidneys had suffered, the urine being of a low specific gravity, loaded with albumen, and containing renal casts.

The presence of albuminuria is, however, not frequent, nor is it, when in small quantity, of such serious import as might at first sight be supposed. Malarial cachexia may exist with very little obvious visceral complication; though I am inclined to think that if examination be carefully made, some enlargement will generally be found to exist: and so long as it continues, the cachexia will remain and the person be liable to recurrence of fever. Cases of malarial cachexia occur occasionally as the result of the slow but prolonged influence of climate without fever; the process apparently being one of failing health and slowly progressing anæmia,

it is indicated by increasing debility, inability for mental or physical exertion, dyspnoea and restlessness, functional derangement of the abdominal viscera, dyspepsia, coated tongue, loss of appetite, chronic rheumatic pains, aching pain along the nerve-trunks, neuralgia, and other indications of disturbed innervation and nutrition, hot hands and feet, and occasional rises of body temperature. The spleen and liver will occasionally be found enlarged, though it may be but slightly; the urine may be albuminous, the heart's action feeble, and there may be oedema of the feet, face, and probably of the pulmonary tissue. The blood is altered: the red corpuscles are diminished in number and size; the white corpuscles are relatively, if not actually, increased. There is a tendency to pigmentation of the skin and tissues, and to formation of fibrinous coagula, which may prove dangerous, if not fatal, by plugging the heart or pulmonary arteries, or may cause embolism and gangrene; the least wound or abrasion is liable to become phagedænic or gangrenous.

Dr. E. G. Russell, B.M.S., who has resided several years in Assam, and paid special attention to malarial diseases and their effects on the spleen, has made some valuable observations on the subject. He says: "The spleen and stomach suffer directly from malarial poison in a much more marked manner than the liver; the spleen suffers from two forms of enlargement—temporary and permanent; in the former it suffers in common with the portal system from congestion during the fever, and becomes in fact a diverticulum for the blood of the portal system." The pulpy substance at the same time increases, so that these temporary enlargements are not mere distensions from excess of blood, but are combined with much increase in the amount of the true pulpy tissue. "The hyperæmia subsiding, this excess of spleen pulp is soon absorbed; it moves on and disappears." During this temporary enlargement the disintegration and destruction of the red corpuscles is much increased, and hence the exhaustion produced by recurrence of these fevers, which is greater than can be accounted for by high temperature—resembling the effects of severe hæmorrhage, and hence also the anæmia and pallor in cases where the spleen is chronically enlarged. With reference to the recurrence of fever attacks, Dr. Russell thinks "the malarial poison is cumulative in its action. It may be, and is, eliminated as fast as imbibed, and when so no definite ill-results ensue." The permanent enlargement assumes a chronic form, the congestion becomes combined with a low form of inflammation, and inflammatory products are added. The pulp and trabeculæ are found in excess, but the latter not in the same ratio as the former. Such spleens are sometimes abnormally soft, presenting the appearance of a sack of blood; but, on the other hand, the inflammatory products mingled with the pulp may constitute a hard but friable cake, easily broken down. As the trabecular tissue does not increase in proportion, the malariously enlarged spleen is seldom met with of tough, firm consistence. The stomach, duodenum, and liver all suffer from chronic congestion. I would merely add that my own experience of malarial splenic disease entirely supports the views he so ably advocates.

Besides the cachexia and other conditions resulting from enlarged spleen, liver, congested portal, renal, and gastro-intestinal circulation, there are other sequelæ of malarial poisoning which are very distressing, such as neuralgia, which may affect any area of nerve-distribution. The fifth nerve, the brachial plexus, and the sciatic are especially prone to suffer; and I have seen many cases in which the suffering was very great. These attacks of malarial neuralgia have their periods of remission and exacerbation—in some instances assuming the quotidian, tertian, or quartan type; in others being altogether irregular, and often very obstinate.

Asthma is also a frequent mode in which malarial poisoning expresses itself, and though frequently purely functional, is liable to produce emphysema and chronic bronchial changes.

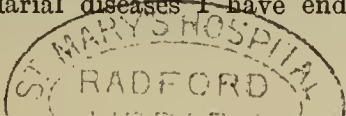
The time at my disposal does not permit me to dwell on them at any length, or I should describe the etiological relations of malarial poisoning to elephantiasis, bronchocele, hydrocele, and beri-beri. I have discussed these questions elsewhere, and must pass on to consider the question of treatment of the malarial diseases. I have endeavoured to describe.

The General Treatment of Malarial Fevers.

The days of bleeding and mercurialism had passed, or nearly so, when I went to India in 1850, so that I have had no personal experience of a mode of treatment which fifty years ago was believed to be absolutely essential. Twining was a keen observer, a thoughtful, highly instructed, and practical physician, held justly in high repute. His work on diseases in Bengal is still read with profit, for he carefully studied and recorded disease, and has left very accurate pictures of fever as he saw and treated it in Bengal. He says:—"The benefit of bleeding in the cold stage of intermittent fevers is now so well known in India that I hardly need say in a great number of cases it arrests the paroxysm, and is the best mode of preventing those ulterior visceral engorgements and indurations which too often prolong the disease till the constitution is ruined." . . . "When the cold stage comes on, take some blood from the arm at the commencement of the rigors, or just when the coldness and shivering are completely established." . . . "In general it is sufficient to take twelve or sixteen ounces of blood from a European of middle size; in the most robust subjects I would limit the quantity to be taken at one bleeding during the cold stage to twenty ounces! In Bengalees I find from four to ten ounces sufficient in general to arrest the paroxysm," and so on. Again, "As blood-letting during the cold stage does not always completely remove the existing local affection, it is requisite to ascertain the seat of the predominant inflammation or congestion, and to apply leeches near the part principally affected—from six to ten daily to a plethoric patient in whom general bleeding has been premised; a smaller number every second day may be sufficient for those who are emaciated, and after some days' employment of the leeches it is frequently requisite to apply a blister and keep it open for a week. This follows or accompanies purgatives, and quinine should be administered in the intervals of the paroxysms in the dose of from two grains to four grains for an adult every two hours. In a few cases I found it necessary to give four grains every four hours for four doses when the intensity was so great that a fatal termination was apprehended." Emetics were not in general use in the treatment of intermittent fever in Bengal, but when there was gastric disorder he administered ipecacuanha in large doses. This was the treatment of intermittent fever in Calcutta in 1830 and for some time after that date!

I have not the statistics for the General Hospital of those days to refer to for the results, but from Twining's records of cases I find that many of them did very well, and he says:—"The practice of bleeding in the commencement of the cold stage has always proved safe, and generally more successful than any other remedy." But he adds—"There are two sources from which I am apprehensive that Dr. Mackintosh's excellent plan of bleeding in the cold stage may be brought into disrepute—from the operation being trusted to careless assistants who either do not bleed the patient at the proper moment, viz., the commencement of the rigors; or, from a much larger quantity of blood being taken than is requisite to produce a beneficial effect; therefore I have limited the quantity which it is advisable to take at one time." He says that there are cases in which it may not be desirable to bleed, and he advocates no exclusive practice; neither does he advise bleeding in the cold stage without due consideration of the nature of the disease and condition of the patient. Let me take one illustration:—"W. M., aged twenty-one, tall, rather stout. Nine years in India on July —, 1830; paroxysm returning every second day at about eleven; was freely purged with compound jalap on July 7, venesection fourteen ounces at commencement of rigors of fourth, arrested shivering in less than six minutes. Purgative of colocynth and rhubarb daily. July 13, violent shivering at 7.30 a.m., venesection twenty ounces! Rigor ceased while blood was flowing—no hot or sweating stage took place—he had no return of the disease." This reads well! rigors ceased and no return. He records other cases of the same character, but not all so speedily successful. Twining is careful to say that he did not bleed his patients to relieve inflammation, but congested abdominal vessels. But it was a spoliative and needless proceeding, as the practice of later times has shown, though not abandoned altogether, I believe, in some countries.

I am opposed to all spoliative measures, but I can imagine a condition in which bleeding might be the choice of a lesser



evil, and if the abstraction of a little blood could give relief, the loss of a few ounces would not signify. *Antiphlebotomy*, like other things excellent in themselves, may be pushed too far. Needless to say here, that the lancet has been laid aside—calomel, emetics, and purgatives generally are less used; quinine is more freely given.

How far the mortality of endemic fever in former years may have been attributable to depletion I cannot say, but it certainly has diminished greatly of late years, and death from uncomplicated malarial fever in a European is not frequent now. During an experience of more than twenty years I can remember but few fatal cases, and I think this is the experience of most medical officers who have served in India during the last thirty or forty years.

The statistics of the British Army in India show that the fever mortality from which they have suffered is not due to periodic fevers. Through the kindness of the medical officers of the General Hospital of Calcutta and Madras; of the Medical College and Campbell Hospital in Calcutta, I have been favoured with notes of cases treated recently in those institutions. It is interesting to compare them with cases of fifty years ago. The simpler and non-spoliative measures are as successful, if not more so, than those of Twining's time: how much better for the patient afterwards, can easily be imagined.

The general plan of treatment of ordinary attacks of intermittent fever in India is as follows:—An aperient consisting of colocynth and blue pill, to relieve constipation and congestion of the portal system, is generally the first and essential step. This may be followed by some saline aperient, sulphate of magnesia or soda, which it may be expedient to repeat. If there be signs of gastric irritation, coated tongue with red edges, or of a tendency to dysentery or diarrhoea, one or two full doses of ipecacuanha, fifteen grains or twenty grains, may be desirable. During the cold stage, warm drinks, warm clothing, hot bottles or bricks, are useful; and during the pyrexia, cooling drinks, ice to the head if there is much pain, and diaphoretics, such as—*Rx.* Liquor. ammon. acet. $\mathfrak{z}\text{ij}$., ether nitric. $\mathfrak{z}\text{ij}$., potas. acet. $\mathfrak{z}\text{ij}$., mist. camph. $\mathfrak{z}\text{vj}$.—*m.* One-eighth part every two or three hours. In the sweating stage, simply rest and quiet; care being taken to avoid chills. Quinine should now be given, and repeated every three or four hours. I have generally given, it in the following form:—*Rx.* Quin. sulph. gr. xl., acid. sul. dil. $\mathfrak{z}\text{j}$., tinct. aurantii $\mathfrak{z}\text{ij}$., aq. $\mathfrak{z}\text{viij}$.—*m.*; ft. mist. One-eighth part for a dose. The diet should be light; stimulants, unless there be some special necessity, are not required. During the intervals the patient should avoid fatigue, excitement, or exposure to vicissitudes of weather, and he should continue to take quinine, after the first three or four doses, at longer intervals—say of six hours—until cinchonism begins to appear, when it may be gradually relinquished altogether. should a second or third attack have occurred, it is well to take a dose about an hour before the onset is expected, and if the first dose of five grains have not made a decided impression by postponing or diminishing the paroxysms, ten grains may be given. Many give ten grains at first; I have generally found five grains sufficient in ordinary cases, and when the time comes for diminishing the quantity the dose may be gradually reduced to three grains, and those at longer intervals. The bowels must be kept open, not merely with the object of removing accumulation, but of relieving the portal system, liver, and spleen. Quinine will have little effect without this; with it it is most efficacious in diminishing the intensity, and in many cases of preventing return of fever. In uncomplicated cases of intermittent with no visceral engorgement this mode of treatment will generally be efficacious. Dr. Burton Brown, of Lahore, writes:—“The cure by large doses of quinine is so certain that we often call it four-day fever. A man gets fever one day, sends for the doctor the next, who gives him a purgative, then fifteen or twenty grains of quinine; the third day he feels weak, takes another dose of quinine with some tonic, and on the fourth day returns to his work apparently quite well.”

Persistent return of fever will need larger doses of quinine, or arsenic. Complications, whether cerebral, thoracic, or abdominal, and pernicious forms of fever, will require modification of the treatment, to which I shall refer presently.

The Treatment of Remittent Fever.

In the treatment of this form of fever, antiphlogistic

measures are equally inappropriate. The high fever, rack-ing headache, muscular pains in back and limbs, epigastric pain, nausea, vomiting, and other painful symptoms, call urgently for relief, but not by bleeding, unless indeed a few leeches be applied, and that but very seldom. The bowels should be freely acted on by colocynth or jalap, with a moderate dose of calomel, and acetate of ammonia, with ether, to induce diaphoresis; cooling drinks and iced water should be given; whilst ice is applied to the head, which should be shaved if the heat and pain be great; cold affusions, sponging, or even the wet sheet may be used if the temperature is very high, care being taken not to apply cold long enough to cause depression. Draughts of tepid water will soothe the stomach and relieve it of bile and other matters; if the retching be obstinate, swallowing small pieces of ice is grateful. Effervescing draughts of citrate of potash and iced soda-water, the application of a sinapism or some chloroform on a piece of lint over the stomach, will sometimes give relief. Pain over the liver and spleen may be met by hot fomentations; it may be expedient, if very severe, to apply a few leeches over the painful region, but this is seldom necessary. The most important indication is to watch for any sign of remission, which *generally occurs in the morning*, and is recognised by decrease in the pain, fever and general suffering, and an appearance of moisture on the skin. A full dose of quinine, ten to fifteen grains in solution, should be administered. Twenty or even thirty grains are sometimes given; I doubt if they do more good than ten grains, but am quite prepared to admit that fifteen to twenty grains may occasionally be necessary. It sometimes happens that the stomach will not retain the quinine, and that dose after dose is rejected. If so it may be given by hypodermic injection or by enema—the former is best, and if the needle be made to enter the subcutaneous areolar tissue, *turning the aperture of the needle away from the under surface of the skin*, there is little danger of local mischief, though abscess, sloughing, and erysipelas, and even tetanus, have followed the operation. In cases combined with splenic cachexia it should be avoided if possible, and the precaution should be taken of making a solution of the neutral sulphate, or of borate of quinoidine (of Dr. De Vrij), which is very soluble and has an alkaline reaction, dissolving in three parts of cold water.

Mr. Scriven, of the Bengal Medical Service, dissolves the sulphate in tartaric acid, and has used it in a number of cases with efficacy and safety in which other modes of administration have failed. He has not found it produce abscess, ulceration, sloughing, or tetanus, if the precautions before mentioned, which were suggested by him, were observed. It is preferable to the solution of the neutral sulphate on account of its higher concentration, the tartaric solution containing one in three, whilst the neutral sulphate is only one in twelve. Quinine must be continued until the symptoms abate, when the remission becomes more perfect, the tongue cleans, and the condition of prostration improves. It is not necessary to continue large doses, but enough to keep up a moderate degree of cinchonism, unless the last attack has been very severe, or when the fever tends to assume the adynamic form or become continued. When typhoid symptoms appear to be setting in; when there is delirium, sordes on the tongue and lips, muttering, tremor of muscles, dry hot skin, abdominal, hepatic, and splenic tenderness, with delirium, depressed cardiac action, and feeble pulse; or, on the other hand, when the febrile condition assumes the sthenic type, and no signs of remission appear, or only in the most transient form, quinine should be given irrespective of the remission. I have ceased to regard pyrexia as an obstacle to the administration of quinine, for though it is more effective when given during the remission, I have often seen it of service in adynamic conditions of remittent when given in all the stages, and have so often known it reduce temperature in other febrile states that I never hesitate to give it during the pyrexia of malarial remittent; a coated tongue and confined bowels need not deter in a bad case from giving it. Nourishment and stimulants are to be carefully administered. Pulmonary and bronchial congestion and inflammation are often dangerous and frequent complications. Hepatic and bowel complications may also occur, and will require appropriate management. When the adynamic state supervenes, wine, brandy, and other stimulants are necessary, and quinine may be given, combined with decoction of cinchona and

ammonia. The amount of alcohol will depend on the state of the pulse; animal broths, milk, and other similar nutrients will be required. Convalescence must be carefully tended; change of climate should be enjoined as soon as the strength is sufficiently re-established to enable the patient to undertake a voyage.

Quinine is the most valuable prophylactic and therapeutic agent in the treatment of malarial fevers, and it seldom fails if judiciously used. Experience has taught me that the large doses of twenty to thirty grains sometimes given are not generally necessary, though there may be exceptions to this rule. Still, however carefully administered, it will sometimes neither arrest the paroxysms nor alter the character of the fever; indeed, in certain cases it seems rather to do harm than good; though, as far as my experience goes, such cases are rare. Failure may be due to the state of the abdominal viscera and gastro-intestinal tract.

I have heard intelligent natives ask not to have quinine given to them, as "they did not wish to make the fever worse." Had a dose of calomel and colocynth, or of compound jalap powder, or some neutral salt, been given before the quinine, the effect might have been more satisfactory. The plan of giving the quinine during the sweating stage and intermission is a good one; but the objection to it during the pyrexial stage is groundless, for it reduces temperature and often produces diaphoresis.

In ordinary cases a simple diaphoretic is sufficient in the hot stage; but when the remission is imperfect, or the tendency to pass into the typhoid condition, so often seen in the worst forms of jungle remittent, threatening, quinine should be given, without reference to temperature, though if there be ever so slight an appearance of a remission it is well to seize the opportunity and give a full dose of ten or fifteen grains. In the pernicious forms it is important, as a general rule, to bring the patient rapidly under its influence by injecting, if it cannot be taken by the mouth.

In former days calomel was regarded as an essential part of the treatment, and large and frequent doses were given; an occasional dose of a few grains combined with colocynth may be useful, especially when there are hepatic complications, but beyond this it is not required.

The essential principle of treatment is to keep the bowels open (not loose), to relieve visceral engorgement, bring down the temperature, and neutralise the action of the poison. I know of nothing that has such an antipyretic power as the cinchona alkaloids; they neutralise the poison, diminish blood-pressure, decrease the temperature, retard tissue-change, and prevent or modify periodicity.

Their most marked effects are shown in their influence on malarial fevers, but, for the reasons I have given, quinine is useful in other pyrexial conditions, and I cannot regard it as a crucial test of the nature of a fever; for it will reduce temperature in continued as well as in paroxysmal fever. Indeed, in the most fervent of all fevers—the ardent or thermic—when the temperature rises so high as to imperil life, hypodermic injection of quinine has been thought to have a powerful effect in reducing the temperature; and I believe it is now given in enteric fever in this country with this object.

In pernicious attacks, when the symptoms are those of collapse and depression, either in the cold or sweating stages, quinine must be combined with stimulants and warmth. In the cold stage it may sometimes be advantageously combined with opium, whilst warmth is applied to the body generally. When coma supervenes in the hot stage, ice to the head, sinapisms or turpentine stupes to the legs and trunk, and stimulating enemata, in which thirty grains of quinine may be combined, or a few leeches to the mastoid processes, may be useful. Blisters are sometimes applied. Under the influence of quinine the symptoms may subside, and the fit terminate like ordinary ague. Stertor, congestion, coma with high temperature, seem to suggest active measures, but not of a depleting character. This masked form of fever may be mistaken for apoplexy or sunstroke; and from the latter there is probably not much difference. If the algid condition appear, warmth, stimulants, sinapisms, and quinine are necessary. In this condition, and especially when there is gastralgia and vomiting, I have found opium afford great relief.

Time does not admit of dwelling on the numerous antiperiodics; none of them are comparable to cinchona and its alkaloids. The mixed alkaloids now prepared in large quan-

tity in India, from cinchona grown in the plantations at Darjeeling and other hill-stations, have been submitted to trial and have been found very efficacious, though certain objections were made that they caused nausea; it seems as though this and other objections are not so serious as at first imagined, and that there is reason to believe the drug will come into general use. Though economically they have advantages, they will not supersede the sulphate in therapeutic value.

Quinetum; Cinchona Alkaloids.—Dr. De Vrij brought this preparation to notice, and it is now largely prepared and used in India, and is found to be very efficacious. The nauseating properties perhaps were rather exaggerated. Dr. Verckhuysen says quinetum is of great value as a febrifuge, but that it takes longer to act, and will not replace quinine in pernicious fever. It has the same apyretic effect as quinine, but is less powerful; larger doses are therefore required at longer intervals before the paroxysm than quinine. It produces no unpleasant effects, no noises in the ear, and can be taken by those who cannot take quinine. It is more efficacious in chronic cases, and as a tonic, whilst in masked malaria it is incomparably superior to quinine. My belief is that it is a very valuable drug, but there is not sufficient evidence to prove that it is better than the sulphate of quinine.

Arsenic is a valuable febrifuge and antiperiodic. When quinine does not succeed, arsenic sometimes will do so, given in doses of five drops of the liquor arsenicalis. Care must be taken not to continue its use too long, or until symptoms of gastric irritation are set up. In the treatment of the early conditions of malarial fever I have never seen anything to make me think it equal to quinine; but in cases of chronic malarial poisoning, with frequent returns of fever, neuralgia, or other indications of the chronic action of malaria, I have seen great benefit arise from the continued use of arsenic in small doses—three to four drops of the liquor arsenicalis twice a day, after food.

The antiperiodic powers of opium are probably the chief reason why opium-eating and smoking has become so widely spread a habit in China and India. There is little doubt that it does possess such a power, and that in the earlier stages it gives great relief: it relieves pain, soothes and breaks or stops the periodic return of fever; and it seems to assist those exposed to malarial influences in resisting them. It has been used for this purpose since the time of Galen. Trotter, Lind, and others, last century, prescribed it, and there may be cases where it might be expedient to use it now; it would probably be hurtful during the hot stage, yet in the cold and sweating stages it might be beneficial. Waring says he has seen it cut short the cold stage like a charm, and mitigate the severity of the following hot stage. I have had no experience of it as a febrifuge, and as there are so many others that would better fulfil the purposes required, except in intercurrent conditions which might complicate malarial fever, I should not resort to it. Many other drugs are spoken of, both in the official and native pharmacopœia, but they are inferior to the cinchona alkaloids—arsenic, biberine, salicine, strychnine, atees (*Aconitum heterophyllum*), piperine, ilicin, bonduc nut (fruit of *Cæsalpina bonduchi*), salts of iron, zinc, picric acid, the mineral acids, and a variety of native drugs, zinc and nitric acids, the hyposulphites, and alcohol. These, or some of them, especially iron, may be of service in certain stages of the fever or in the cachexia following it; but in the treatment of the fever, quinine is the most effective. Atees is much used in native practice, and no doubt is a valuable drug, whether as an antiperiodic, tonic, or as combined with gentian, chiretta, or other vegetable bitter, but it can in no way take the place of quinine, quinetum, or arsenic.

I may not omit to mention the tincture of Warburg. I have never seen anything to make me think it better than quinine, though it certainly possesses febrifuge and diaphoretic properties in a remarkable degree. Dr. Maclean and others speak highly of it, and as its composition has been declared some of the objections to its use have been removed; but I must leave it with this brief notice.

In the treatment of malarial cachexia, with enlarged liver and spleen, the most important step is change of climate, the judicious use of preparations of iron and quinine, attention to the state of the portal system; remembering the necessity for relieving portal congestion before we can expect benefit from other remedies. I do not mean depletive

measures or excessive purgation, but only gentle action by salines combined with quinine and vegetable bitters; a carefully regulated and nourishing diet, and protection from all vicissitudes of climate, must be enjoined. In such cases benefit may be derived from the saline and ferruginous waters of Germany, and from measures that tend to improve general health. I need hardly add that a prolonged absence from the country in which the mischief originated is necessary.

In conclusion, I would remark that though the use of mercury is especially to be deprecated in the treatment of disease connected with the malariously enlarged spleen, yet that the local application of the ointment of the red iodide of mercury, applied as it is done in India for goître, is often most successful in rapidly reducing the spleen; and that it does not appear to incur much, if any, risk of mercurialism being induced. Professor Maclean speaks favourably of it, and I can endorse the opinion he has expressed.

One word in regard to a matter I have omitted. In advanced splenic cachexia the patient should be very careful not to make any exertion; the easily excited heart is provoked at once into over-action, and the result may be a rapid dissolution with all the symptoms of pulmonary obstruction. The last instance in which this was forcibly impressed on my attention was in the case of a young Englishman of eighteen or twenty who had returned from India in a profound state of splenic cachexia—the spleen itself descending nearly to the pelvis, and with all the symptoms of anæmia present in the most advanced condition. Under the influence of quinine, iron, and good nourishment he was improving, and there was hope of further progress. One day, in spite of most earnest warnings to the contrary, he got up, walked to the window, and tried to raise or shut it. He got back to bed exhausted and breathless, and died in a few hours.

In my next lecture I hope to describe some forms of continued fever in India.

ORIGINAL COMMUNICATIONS.

FILARIA SANGUINIS HOMINIS,
LYMPHOCELE, LYMPHURIA, AND OTHER
ASSOCIATED MORBID DISORDERS;
WITH A HINT OF OTHER WORM-DISEASES IN EGYPT.
By PROSPERO SONSINO, M.D. (Pisa University)

THOUGH my first detection of *Filaria sanguinis hominis* in Egypt goes as far back as the year 1874, I have not yet had the opportunity here of verifying the more recent discovery, due at the same time to Bancroft in Australia and to Lewis in Calcutta, of the adult worm—*Filaria Bancrofti* (Cobbold)—which generates the embryonal filariæ living in the blood. But as I have lately verified some new cases of parasitism from *filaria sanguinis*, having now a total of ten cases, which I had the opportunity of studying thoroughly from a clinical point of view, I think I have sufficient materials for illustrating this subject, if not under a general aspect, at least as far as concerns the existence of the parasite in Egypt. It is with this intention that I venture to give an account of my cases in an English journal.

For the sake of brevity I begin by presenting a synopsis of the ten cases, indicating the origin, age, profession, and state of the filarious subjects, the morbid disorders or diseases associated, and the medium in which I have verified the presence of filaria.

Whoever wishes to know how I have been brought to find this filaria in human blood in Egypt, may read the notice given of it by Sir Joseph Fayrer in a note published in the *Lancet* of August 26, 1876, under the title "*On Filaria Sanguinis Hominis Ægyptiaca*." I gave it the name *Ægyptiaca* when I believed it to differ from the filaria of Lewis

Synopsis of Ten Cases of Individuals affected by *Filaria Sanguinis* observed in Egypt.

	Years of the observation.	Where observed.	Origin, profession, state, etc.	Age (years).	Disorders and diseases associated.	Where embryonal filariæ were found.
1	1874-82	Private practice, Cairo ...	Native Jew, merchant	15	Deafness and attacks of ephemeral fever, bilharzia disease, ascariis, and oxyuris	In blood from the finger, and once in the bloody urine.
2	1877	Kasr-el-ain Hospital, Cairo	Negro Bongo, soldier	22	Elephantiasis scrotalis and præputialis, abscesses in the thigh, marasmus, and diarrhoea	In blood taken from the scrotum.
3	1877	Private practice, Cairo ...	Native Jewess	55	Lymphuria	In blood from the finger and in the lymphous urine.
4	1880	Diaconess Hospital, Alexandria	Native Copt, clerk	50	Lymphuria and emaciation ...	In blood from the finger and in the lymphous urine.
5	1880	Greek Hospital, Alexandria	Greek, since many years in Egypt, coffee-house servant	26	Lymphocele	In blood from the finger and in the fluid of lymphocele.
6	1880	Diaconess Hospital, Alexandria	Mohammedan from Gabes (Tunis), coffee-house servant	20	Lymphocele	In blood from the finger and in the fluid of lymphocele.
7	1880	Private practice, Cairo ...	Native Caraité Jew, merchant	30	Lymphuria, with anæmia and weakness	In blood from the finger.
8	1880	Private practice, Cairo ...	Native Jew, clerk	30	Lymphuria, with anæmia and weakness	In blood from the finger and in lymphous urine.
9	1881-82	Private practice, Cairo ...	Native Mohammedan, apothecary	23	Lymphuria, emaciation, chronic pneumonia, partial muscular disorders	In blood from the finger and in lymphous urine.
10	1882	Private practice, Cairo ...	Native Jew	23	Bilharzia disease	In blood from the finger; once in bloody urine, in 1874.

in not having an external envelope, described by him as a characteristic of the nematode embryos; but now that it is ascertained that the external envelope is not constant, and probably only the original embryo-skin separating by ecdysis (Cobbold), viz., a simple moulting of the embryo, and as verified by me in some further observations—I have now no reason to believe that the filaria observed in Egypt belongs to a different species to that discovered by Dr. Lewis in India.

1. The first case I observed is the more important, as the individual was at the same time affected by hæmaturia from Bilharzia hæmatobia, but presented no symptom that could be referred to the presence of filariæ, with the exception, perhaps, of a slight degree of deafness, and of some recurrent attacks of ephemeral fever. For eight years I have had this filarious individual under my observation, and have verified from time to time, up to this date, the presence of the filarial embryos in his blood. He has not, however, as yet suffered from lymphuria, or other ailments frequent in

filarious individuals, and his health has lately rather improved, the attacks of fever having become less frequent, and his deafness less apparent.

2. The second case, a Bongo soldier, is interesting, as the presence of the embryonal filaria was associated with elephantiasis præputialis and scrotalis. When I saw him for the first time, an in-patient at the Kasr-el-ain Hospital of Cairo, he had some months previously undergone excision of the diseased prepuce, which measured some twelve inches. In blood obtained by pricking the elephantiasis scrotum I found the filarial embryos. The man was emaciated, and had had abscesses in the thighs and legs, regarding which I could not ascertain if they were dependent on the *Filaria sanguinis*; but the medical men who attended him assured me they had extracted from him some specimen of *Dracunculus medinensis*. I heard afterwards that this patient died some time after my visiting him, and the necropsy showed a tuberculosis diffused all over many viscera, especially in those of the abdominal cavity, as so frequently

occurs in negroes. But no special researches had been made concerning the filaria.

3. In the third case it is important to remark that although the woman states that for many years—perhaps more than twenty—she has been subject to recurrent attacks of lymphuria, yet she looks well, and suffers little from the recurrent attacks of her disorder.

4. The fourth case was examined by me when the individual was suffering from a second attack of lymphuria, the first having occurred three years previously. The man was emaciated, and suffered much in consequence of the loss of the nutritive fluids.

5. The fifth case was the first that I had met with having milky hydrocele, or *lymphocele*. The man was admitted into the Greek Hospital at Alexandria, where Dr. Zancarol performed tapping. On seeing the fluid like milky urine I was persuaded that it was a case of filaria disease. The fluid, measuring about 200 grammes, was an opaque, canary-yellow liquid, with alkaline reaction, specific gravity 1020. Shortly after extraction it formed some small, thick, and elastic clots, which, teased on a slide, showed under the microscope several embryonic filariæ still living and showing more activity in their movements than is generally observed in those found in the blood. These filarial embryos were moving in strata of fibrillar appearance due to coagulated fibrine. The microscope revealed also other histological elements, principally lymph corpuscles of different size, some with very refrangent granulations, some pavement epithelium, a few red corpuscles, and a great quantity of very fine granular matter. Chemical analysis made by Dr. Cartulis, Assistant-Physician to the Hospital, showed, besides fibrin, a large quantity of albumen and fatty matter; but no sugar with the Fehling test. The urine of this subject offered nothing particular; but blood from the finger contained filariæ.

6. The sixth case was an out-patient of the Diaconess Hospital, Alexandria. The fluid of his lymphocele was handed to me by Dr. Kourijson, the assistant-physician to Dr. Rackie, who performed tapping. Being very similar to the previous case, it is unnecessary to say more about it.

Differences between Lymphocele and other Hydroceles.—Concerning the fluid of lymphocele I wish to remark that its characteristic is to coagulate spontaneously. Some opacity of the fluid may be due to other causes than the presence of lymph, as sometimes happens in opaque hydrocele due to the presence of cholesterine (Bryant's "Practice of Surgery"). There is also spermatocele, viz., fluid containing spermatozoa. Last year I had a case of this spermatocele here in Cairo. Its appearance, however, is very different from that of the filarious lymphocele, the fluid resembling unfiltered lime-water.

7. The first attack of lymphuria lasted five months, and began with pain in the loins and dysuria. In the course of the attack the patient voided also bloody urine, complaining at the same time of pain extending over all the abdomen. When I saw this patient the attack was subsiding; the morning urine was often transparent, and when milky contained only small coagula. The epigastrium was prominent and tender to the touch. I verified the presence of filariæ only in the blood taken from his finger.

8. The first attack of lymphuria occurred in 1878. I saw the patient when he had the second attack in September, 1880. This second attack lasted only two months. Since then he has had no more lymphuria. I am not sure if the administration of inf. quassia amara with tinct. ferri perch., alternately with agaricum, has in any way contributed to this result.

9. I first observed this case in December of last year. It is one of the most important cases I have seen hitherto. A. M., aged twenty-two, native of Cairo, apothecary, states that it is now thirty-two months that he has suffered from milky urine, without any interruption. Previously he enjoyed good health, and assures me that his present condition is the result of his lymphuria. The disease began with pain in the loins. He had never seen any appearance of blood in the urine. He is now emaciated and very weak; he cannot undergo any fatigue; his gait is unsteady; he suffers from spasms of the flexors of the hands, and from numbness in the legs. These last symptoms, with emaciation, offer a form of disorder resembling the Indian disease called *barbiers* ("Copland's Dictionary"). He has cough and catarrhal expectoration; the lungs are not entirely permeable to

air. The presence of a large quantity of epithelial cells from the alveoli found in the sputa by microscopical examination shows that there is chronic inflammation, if not tubercle, in the lungs. The patient has pain in the epigastrium; nevertheless, the digestive functions are not much interfered with, and he is obliged to take plenty of nourishing food, in order to repair the continual loss of nutritive fluids. The urine is always white and opaque as milk; it constantly yields an elastic clot; density from 1014 to 1020; reaction neutral. The opacity is more intense in the afternoon than in the morning. He has taken many medicines; has been some time in a hospital, without any result. I found filaria both in blood and in urine. In the latter I have found filariæ at all hours of the day; but as for blood, that obtained in the nightly hours offers a greater number of filariæ.

This filarious individual having much impairment of the sight, I asked my friend Dr. Levi, an oculist resident in Cairo, to examine him with the ophthalmoscope, and he found no alterations of the fundus, but there was in both eyes a luxation of the crystalline lens. As a spontaneous double luxation is extremely rare, it would be interesting to ascertain whether this alteration has any direct relation with the filaria disease or with its consequent cachexia.

10. The case of a young man whom I had treated in 1874—then fifteen years old—for a severe attack of hæmaturia connected with bilharzia. In his urine I had several times found many ova and embryos of that worm; but what puzzled me at the time was that once I thought I saw a quite distinct—though not living—specimen of nematode embryo. But I missed then the opportunity of ascertaining this new parasitism, having lost sight of the patient. Lately having seen him again, I obtained a drop of blood from his finger, and discovered several filaria embryos. The young man is now apparently in a satisfactory state of health, and offers no objective symptoms that may be referred to the presence of filariæ, but he complains of recurrent giddiness.

(To be continued.)

OBSERVATIONS ON THE PRE-ERUPTIVE STAGE IN SMALL-POX;

WITH HISTORY OF CASES.(a)

By MONTAGUE D. MAKUNA, L.R.C.P. Lond.,
Late Medical Superintendent, Fulham Small-pox Hospital.

DURING my connexion with Fulham Small-pox Hospital, from March, 1877, to May, 1880, I devoted my time unceasingly to study; among many other allied subjects, to three questions—1. Infection through the atmosphere; the history of the cases admitted to the Fulham Hospital, and others that were brought to my knowledge. 2. The period of incubation, that forms the subject of this paper. 3. Variolous affections of the eye.

I have looked upon the first question—viz., the history of the spread of the disease, especially in the vicinity of the hospital—as of national importance, involving, as it does, questions of sanitary legislation and many intricate problems for the prevention and arrest of epidemics. Unfortunately, various circumstances have prevented me from giving my experience on the subject to the profession and the public. I hope to lay the results of my work before the Society on a future occasion.

This paper is based on observations made in about 1600 cases, and I may, without presumption, say that the history of the cases and the facts bearing on the clinique of the pre-eruptive stage in small-pox form one of the largest records in medical literature.

I am anxious to explain at the commencement some of the terms I have used, as they are differently interpreted by several observers.

The period of incubation is the time which elapses between the poison of an infectious disease entering the system and the first manifestation of the symptoms. Dr. Gregory calls this stage the period of apyrexia.

The pre-eruptive stage is the time which elapses from the entrance of the poison into the system to the first appearance of eruption.

The inter-eruptive period is the time between the first

(a) A paper read before the Epidemiological Society, April 5, 1882.

appearance of eruption in a primary case which is the source of infection, and that of the case or cases that originate from the first.

The *initial stage* is the time of the primary fever. I consider the term most appropriate, as the symptoms during this period initiate the first manifestation of the disease.

The *infective stage* is that period during which infection is 'exhaled' by the body in the atmosphere, and infects its surroundings.

There are two reasons why a distinct line of demarcation cannot be drawn between the period of incubation and the initial stage—(1) no symptom is constant to usher in the initial stage; (2) they are not definite in their duration.

The first difficulty arises from the fact that we have to depend upon the patient for the history of the subjective symptoms, which, when they are mild, and when, as is frequently the case, he is unaware of the approaching danger, are not noticed. Dr. Richardson, in his paper on the period of incubation (1881), states that the first sign of the manifestation of the disease is the rise of temperature; but this may not be detected. He observes that the sudden vibration between cold and heat, which we call chill or rigor, may be accepted as safest; and it is both subjective and objective. In his experience he never knew a case of a communicable disease that was not preceded by chill. I have made personal observations during the pre-eruptive stage in variola, varicella, and scarlet fever, and I have noticed the rise of temperature associated with rigor ushering in the initial stages of the diseases, in some, but not in all. As far as I know, rigor and chill is not the first and essential phenomenon at the time of the reaction in all febrile disorders, although it is frequent. Its occurrence depends on the severity and suddenness of the reaction; it is not an indicator of a severe or malignant type of the case, for we see high fever and rigor followed by variola discreta, and even by variola sine eruptione.

Symptoms complained of by the patients and observed by me in 626 cases, are as follows in point of frequency:—

1. Headache is probably the most constant of them all. When it is localised it is generally over the forehead.
2. Backache is most frequently confined to the lumbar region, and rarely extends to the dorsal. Curschmann remarks that headache and backache precede the chill; which clearly shows that we cannot look upon chill or rigor as the first manifestation of the disease. It may appear strange, but in my cases I have not so frequently come across patients who have made such a complaint to me, that I may give prominence to this symptom.
3. Epigastric symptoms are—pain over the stomach, nausea, and vomiting. They are most frequent and severe in malignant cases.
4. Symptoms of lassitude, prostration, languor, and inability to walk about.
5. Symptoms of cold and sore-throat.
6. Pains over the body, and general malaise.

Constipation is one of the most frequent symptoms. Diarrhœa in an early stage, with high fever, cramps, and rigors, is associated with intestinal eruption, as I have ascertained in three of my cases.

Other symptoms noticed in a few cases are faintings, stupor, delirium, pains over the præcordia and syncope, constriction round the chest, epistaxis, photophobia and lachrymation, symptoms of laryngitis, metrorrhagia, erythema variolosa (which is either macular, measles, scarlatiniform, or punctiform), abortions, typhoid symptoms. In children we have fretting, grinding of the teeth, and convulsions frequently occurring.

The second great difficulty in drawing a line of demarcation between the period of incubation and the initial stage is, that they are inconstant in their duration. The duration of the initial stage in 626 cases, of which 517 were vaccinated and 109 unvaccinated, was as follows:—One day in 19·64 per cent. of the cases; two days in 35·78 per cent.; three days in 20·44 per cent.; four days in 8 per cent.; prolonged in 12·62 per cent.; while there was no initial stage in 3·52 per cent. of the cases. In Curschmann's experience he found it to be three days in 42 per cent. of his cases, a duration of one to two and a half days in 38 per cent., and one of four days and more in 10 per cent. He states that it is longer in variola sine eruptione and purpura variolosa, and shorter in children than in adults. I have carefully read the observations of Trousseau and others, drawing conclusions respecting the intensity of the subsequent stage and

of the course of the disease in general, and I feel bound to side with Curschmann's views that they are unjustifiable, as can be seen from the observations in 626 cases that I record here in Table I. It shows that the length of its duration is no indicator of the severity of the disease. Of the 79 cases of prolonged duration, it was five days in 19 cases, six days in 7 cases, a week in 24 cases, between a week and a fortnight in 17 cases, a fortnight in 10 cases, seventeen days in 1 case, and twenty-one days in 1 case. Curschmann found, in 11 out of his 1000 cases, some symptoms during the stage of incubation; Scheby-Buch, in 4 per cent. of all his cases, a proportion which is considered large, and peculiar to a Hamburg epidemic. That these symptoms have no prognostic value can be seen from the table given below, and it is also the experience of various authorities on the subject.

TABLE I.—Showing the Initial Stage in 626 Cases.

Disease.	Total cases in each disease.	One day.	Two days.	Three days.	Four days.	Prolonged.	None.
V. Varicelloides ...	22	6	6	5	1	1	3
V. Discreta	316	64	115	52	34	39	12
V. Coherens	45	4	22	12	3	4	...
V. Confluens	2·3	42	67	48	11	29	6
V. Corymbosa	1	...	1	...	...	...	...
V. Maligna	39	7	13	11	1	6	1
Vaccinated	517	106	186	103	44	60	18
Unvaccinated	109	17	38	25	6	19	4
Total cases... ..	626	123	224	128	50	79	22

It is most frequently two days; then follow three days, one day, four days, and so on. It is impossible to determine the causes of this variation, in the present state of our knowledge.

(To be continued.)

CEREBRO-SPINAL MENINGITIS IN A NEW-BORN INFANT.—Dr. Bambas communicated to the Medical Society of Athens an account of the case of a young mother, who, seized with fever and convulsions, with opisthotonos, gave birth to an infant, which seemed in a perfect state of health. Nevertheless, she died, and a few hours afterwards the new-born infant was seized with febrile symptoms, together with rigidity of the neck and well-marked opisthotonos. It died in a few hours, and Dr. Bambas concludes that it did so as the result of very acute epidemic cerebro-spinal meningitis.—*Progrès Méd.*, April 29.

APPLICATION OF CHLORATE OF POTASH TO EPITHELIOMA.—It does not seem to be generally known that excellent results have been obtained from the application of powdered chlorate of potash to epithelioma. The surface of the ulcer should be well cleansed, and finely powdered chlorate thickly dusted on it, and allowed to remain until the next dressing. The application may be made twice a day, the surface being cleansed before each application. This treatment is said to relieve the pain, to change the character of the morbid process, and to promote healing. The same powder may be used in canceroid, chancre, and unhealthy ulcerations generally; and it has the merit of safety.—*Phil. Med. News*, April 8.

REGISTRATION RETURNS FOR ALEXANDRIA IN 1881.—In the *Veröffentlichungen d. K. Deutschen Gesundheitsamtes* for April 24 the registration returns of Alexandria for 1881 are published. From these it seems that according to the last census of 1872 there were 212,034 inhabitants, 164,718 being Egyptians and 47,316 foreigners. During 1881 there occurred 9519 births of living Egyptian children (4921 males and 4598 females). There were also 410 born dead. During the same year there were 8075 deaths (4518 males and 3557 females), or 38 per 1000 of the population: 48·51 per cent. of the mortality occurred before the first year of age, and 10·44 per cent. between the second and fifth years. Among the causes of death were small-pox 0·76 per cent., pertussis 3·17, typhoid fever 5·55, dysentery 7·12, phthisis 5·22, affections of the stomach and intestinal canal 17·79, and suicide 0·04 per cent.—only 3 having taken place during the year. Of the 8075 deaths, 7208 occurred among Egyptians and 867 among foreigners, the proportion being 43·76 per 1000 inhabitants in the former and 18·32 per 1000 in the latter.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.
—
GUY'S HOSPITAL.

COMPOUND DEPRESSED FRACTURE OF SKULL,
WITH COMMINUATION OF THE INTERNAL TABLE
—TREPHINING—RECOVERY.

(Under the care of Mr. R. CLEMENT LUCAS.)

[For the following report we are indebted to Mr. H. ST. G. S. HORE.]

E. C. B., aged thirteen years, was admitted into Guy's Hospital on March 27, 1882. About 10.30 p.m. he was walking in the road, when a passing cab knocked him down on to his face. The wheel did not pass over him, but his head fell under the horse's legs. He was insensible when picked up, and was brought in a cab to the hospital. He had recovered consciousness when admitted, and was able to stand. He complained of headache, and when put to bed coiled himself up at once. His pupils were contracted. Pulse 64; respirations 28. There was a depressed, pond-like fracture in the occipital bone, exposed by a scalp-wound two inches and a half in length, running vertically just to the left of the protuberance. Little hæmorrhage took place from the wound, which was not improbably caused by the horse's hoof, or a fall upon an angular stone. There was also a hæmatoma over the right parietal bone. Pulsation of the brain could be seen communicated through the blood lying in the fracture. There was no paralysis of any part of the body, and he has not been sick.

Mr. Lucas arrived at midnight. The scalp was shaved, and chloroform having been given, Mr. Lucas enlarged the wound by a cut to the left, at right angles to the wound, under carbolic spray. A depressed fracture was thus brought clearly into view, one inch and a quarter in length, three-quarters of an inch wide, and one-eighth in depth, at the bottom of which pulsation was visible. The pericranium was incised, and stripped back, and the trephine applied over and to the left of the fracture. When the bone had been removed from within the trephine circle it was found that a splintered portion of internal table, about one inch and a half in diameter, was pressing on the dura mater. The internal table was removed in pieces, nine fragments being taken away. The wound was dressed antiseptically. Pulse 80 after the operation. He slept after the operation till 3 a.m., when he was sick, bringing up a quantity of tea and cake, the accident having happened on his way home from a teetotal meeting.

March 28.—He is quite conscious, and there is no paralysis. He vomited at eleven o'clock. Temperature 99°; pulse 112; respirations 24. At 11 p.m. the temperature rose to 101.2°.

29th.—Temperature in morning 101.8°, evening 101°; pulse 108, bounding. Rather feverish; tongue furred and a little dry. He complains of his neck feeling sore.

30th.—Morning temperature 99.4°; pulse 80; respirations 20. Evening temperature 100°. All sutures removed.

31st.—Wound dressed every day, and looking well. Morning temperature 99.6°; respirations 16; pulse 56. He has lost all drowsiness. Face red; tongue clean; intellect bright and clear.

April 1.—Temperature 99.6°; pulse 64; respirations 16. Evening temperature 98.6°.

8th.—Allowed bread, blanc-mange, and two pints of milk.

9th.—Chicken diet.

17th.—There has been no rise of temperature since the last report. Wound nearly healed.

24th.—There are only a few granulations to be healed over. Wound is now dressed with boracic lint. Still a little discharge, which is perfectly sweet.

May 2.—He left the hospital to-day.

Remarks (by Mr. Lucas).—This was a case of trephining "without symptoms," and one in which some surgeons might have doubted the advisability of operative interference. The boy was knocked down and rendered insensible, but had quite recovered consciousness when brought to the Hospital. He was able to stand, and to explain his symptoms. There was no paralysis nor other indication of pressure on the brain; and it might be asserted that had no operation been undertaken, it is possible no ill result would

have followed. But experience tells us that cases of fracture with much splintering of the internal table are very liable to be followed by meningitis; and if the patient escape this danger, there is still the chance that he may at a later period become subject to epileptic convulsions or partial paralysis from thickening of the membranes. The pond-like nature of the depression, and the fact that pulsation could be seen between the crevices, determined Mr. Lucas in using the trephine. He has no fear, in the use of this instrument, that danger to the patient might ensue from the mere removal of a portion of bone. The danger to the patient is the damage done to the brain by the injury; and if this were more widely accepted, many more cases might probably be saved from the after-consequences of fracture. Proof of this is furnished by cases where trephining has been undertaken for disease or the results of old injury. Such antiseptic trephinings are followed by no constitutional disturbance, and resemble, in the absence of pyrexia following, operations like subcutaneous osteotomy. The extensive communication discovered when the depressed bone was elevated, fully justified the line of treatment adopted; for the inner table was splintered far beyond what was indicated by the outer, and the sharp angular fragments were placing the dura mater in jeopardy of being punctured, though no opening was discovered in it. Nothing could have been more satisfactory than the after-course, and convalescence which followed. The temperature, which rose on the second day, fell almost to normal on the third, and by the fifth had settled down to within the usual limits.

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Medical Times and Gazette.

SATURDAY, MAY 13, 1882.

THE POSITION OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

A CONSIDERATION of the position of this old and honourable Society was again thrust upon us by the meeting of Tuesday evening. Two papers were read—one recording a case of Wood's operation, and to a considerable extent made up of a communication of Mr. Wood himself, who was not present; whilst the other dealt with the virtues of carbolic acid as a local application in small-pox. Not a man of mark or high standing in our profession was present, with the exception of those whose duties compelled them to attend. Why should this be? Two things at least occur to us as some indication as to how the wind blows. The senior

members of our profession, whose remarks on a paper are often by far and away the most important contribution to the work of the evening, do not seem to care to come out except on special occasions. But there is just as notable a want of the younger and more energetic men, who have yet their spurs to win. These seem to prefer to carry their wares to another market, where there is a chance at least of their being more highly appreciated. For the existence of the former set of absentees there would seem to be no specific form of remedy except the conversion of every meeting into a special one. This brings us directly to a consideration of the reasons which affect the abstention of the second group; and we may just as well say what we hear abroad, whether right or wrong. To adopt the simile already employed, men find that their wares are sooner got rid of and better appreciated at other societies than at the Medical and Chirurgical. The papers thus read give less trouble to write, and quite as much *éclat*, as those read before the older Society; nay, more—men are sure of having them printed in the *Transactions* of whatever other society they may belong to; but no one can be sure of that at the “Medico-Chi.” In our opinion, if a paper is good enough to read, it is good enough to print; but this does not seem to hold good at the Medical and Chirurgical. There, after a paper has been read, it is sent to referees. In our view, if referees are required, it is before the reading, not after. We might give more than one illustration of this, but it will suffice for our purpose to refer to a paper called “Hypogastria,” which was stopped by the unanimous judgment of the Society whilst it was being read. Again, it is said—and we here again only repeat vulgar report—that many papers have found their way into the *Transactions* of the Society which were, to say the least, of doubtful value, and had been directly contradicted in the Society itself, publicly and openly; but the authors of which had friends at court. These things are talked of everywhere, and a man who has a certain status—say, belonging to a medical school—does not care to run the risk of getting such a slap in the face as the polite return of his paper implies. This by itself would not be so galling, were it not for the knowledge that work, comparatively speaking, worthless, is not sometimes embalmed in volumes nowadays seldom opened.

We are the more anxious that all these *on dits* should be duly appreciated by the proper authorities, as we have a real love and affection for one of the best institutions of its kind. The Royal College of Physicians and the Royal Medical and Chirurgical Society are practically the exponents of medical esteem in the metropolis. Such a thing as expulsion is, as far as they are concerned, unknown, and bitter partisanship finds no expression there. But care is taken with regard to elections, and no one who has not a clean “record,” as the Americans call it, need apply at either Pall-mall or Berners-street for admission to the Fellowship. Nevertheless, though the Society is increasing in numbers, it is not flourishing—it is becoming more of a club, if we may use the expression, whose *cachet* is eagerly sought for, than a place for discussion. There is a talk of galvanising the Society into life by improving the utterly useless Proceedings. Just as well try to keep out the sea with a mop or a broom! The causes of decadence lie deeper, and until they are duly appreciated by the authorities all tinkering may be considered useless.

MILK ANALYSES.

GREAT as is the accuracy of the results obtained by the process employed by our public analysts, and fully described in Mr. Wanklyn's work, it is scarcely applicable to such daily examinations as are required for the supervision of

large dairy establishments, and which would with much advantage be adopted by public analysts as a *constant* check on the trade in general. Though it might still be employed in all cases in which a prosecution has already been determined on, it is far too tedious for application to large numbers of routine examinations; and a process which, giving fairly correct results, could be completed in an hour or two, and safely entrusted to assistants, would present obvious advantages. Such Dr. Vieth claims for the method employed by him at the laboratory of the Aylesbury Dairy Company, Bayswater, where from fifty to sixty different samples of milk are examined daily with a precision and constancy in the results seemingly but little inferior to those attained by any analyst. His method does not greatly differ from those pursued by Drs. Fleischmann, Schrödt, and Schmöger at the great German dairy stations of Raden, Kiel, and Proskau. Since coming to England, Dr. Vieth has learned to appreciate the importance of a separate statement of the *solids not fat*, which is not sufficiently recognised in Germany, but he also attaches more value than our analysts seem to do to the specific gravity, which he takes in three hundred samples daily. Here it averages 1.0315, being generally between 1.030 and 1.033, and never, in this country or in Germany, has he known it to fall below 1.029, or rise above 1.034, though the mean specific gravity of German milk is somewhat lower than ours.

For the estimation of water and total solids the milk is simply evaporated in a glass or platinum dish as usual, avoiding too high a temperature, for, as Dr. Schmöger points out, 100° to 105° Cent. will drive off from the milk-sugar all water of crystallisation, but one of 110° to 115° Cent. partially decomposes the proteids, if not also the sugar, entailing an apparent loss. For the fat Dr. Vieth now commonly uses the lactobutyrometer of Marchand; but he considers Soxhlet's extraction process as the very best method yet proposed. Ten grammes of milk, having been dried with sea-sand or powdered glass, are put into a case of filtering-paper, closed with cotton-wool, and the fat extracted in the apparatus by pure dry ether. This takes about an hour; the ether is then distilled, and the residual fat is weighed. The estimation by the lactobutyrometer is simpler, and is finished in about twenty minutes, a boy being able to make twenty or more examinations in an hour; and Dr. Preusse, in the recent volume issued by the Imperial Board of Health of Germany, speaks highly of it. Ten centimetres of milk are measured and placed in the tube, the same quantity of pure ether is added with a few drops of a solution of caustic potash, and the tube closed and shaken. Again, 10 cubic centimetres of alcohol, which must be of a strength of 90 per cent. (not more), are added, and the shaking repeated. It is now put to stand in water at a temperature of 40° Cent. (104° Fahr.) until the fat has risen, and then in water at 20° Cent. (68° Fahr.) for a short time, when the depth of the layer of ethereal solution of fat is read off, and the percentage of fat in the milk corresponding thereto ascertained by reference to a table. This method does not pretend to the same accuracy as the usual process, or Soxhlet's method of extraction, and gives no indication when the fat is less than 1.2 per cent.; but for routine examinations or for examination preliminary to stricter inquiry it is very useful, since so many samples can be scrutinised in so short a time that no case of serious dilution need escape notice. A public analyst might submit the milk of every small dairy to daily examination, and thus detect the offenders who now elude his vigilance. The total solids and the fat being ascertained, the solids not fat are easily calculated, but for the separate estimation of these Dr. Vieth dilutes ten grammes of milk with 200 cubic centimetres of water in a beaker, precipitates the casein by

acetic acid, avoiding an excess, collects it on a weighed filter, dries and weighs the filtrate. He then boils to precipitate the albumen, which is collected and weighed in the same way; and lastly, he estimates the sugar by titration with Fehling's solution. For such examinations he weighs the quantities, but in the daily work he prefers measurement by accurately marked pipettes. For the determination of the ash he evaporates ten grammes of milk in a platinum crucible over a steam-bath, chars the residue, washes out the carbonised mass with boiling water, strains off the charcoal, returns the water containing the salts to the crucible, evaporates it, and finally heats it to a dark red. In these analyses he never allows a difference between the observations, which he always makes in duplicate, of more than 0.1 per cent. for the organic constituents, and proportionately less for the ash.

Dr. Vieth, considering the variation in pure milks, suggests that, instead of hazarding the assertion that any given sample has been adulterated with water to the extent of so much per cent., it would be better to describe it as so much under the standard strength. Such a mode of expression would also enable one to pronounce milk of unusually good quality as being so many degrees above the standard or minimum approved by the analyst.

MR. PARKER'S SUGGESTION FOR AN AID TO THORACENTESIS.

MR. R. W. PARKER, in a paper read before the Medico-Chirurgical Society, on the 25th ult., has described a method he was induced to bring forward by the fact that in certain cases of accumulation of fluid in the pleura, great difficulty is experienced in withdrawing it by means of the aspirator. The paper, which all will confess deals with matter which is new, and certainly worthy at least of careful thought and consideration, suffered somewhat in its manner of introduction from the fact that the author did not read it himself; and we may say, in passing, that we welcome the rumour that an alteration may before long be expected in the practice of making it one of the duties of the secretaries to read the communications at this august Society.

The discussion, though interesting and bringing out several valuable points, came rather abruptly to a close, owing to the lateness of the hour, and, as a result perhaps of this, the actual point insisted on by Mr. Parker was a little lost sight of. As we understand it, his argument is as follows:—When fluid accumulates in a pleural cavity, the space which it occupies can only be formed as a consequence of certain changes of position in the boundaries and contents of the thorax—viz., an expansion of the chest-walls, a descent of the diaphragm, a compression of the opposite lung and pushing over of the heart, and a collapse of the lung on the affected side. Now, when the fluid is withdrawn by means of a single puncture, most of these elements can regain their normal condition; but not all. Thus the chest-wall can again recede, the diaphragm can ascend (but only to its normal position in extreme expiration), the opposite lung can expand, and the heart may thus reach its natural position; but the lung of the affected side is, in many cases, not in a condition to regain its full size—the prolonged collapse, or tying down, having destroyed, to some extent, its capacity for expansion. Consequently, there comes of necessity a point in the course of aspiration, if carried too far, when no more fluid can be extracted without something being made to enter in its place. In the natural course of things this can only be either blood from ruptured vessels, ordinary transudations, and renewed formation of pus, or air more or less rarefied as a result of

osmosis through the walls of the air-vesicles. On physical grounds no exception can be taken to this argument, and, following it farther, Mr. Parker maintains that in some cases, especially of chronic pleurisy, the boundaries of the pleura may all become so rigidly fixed in their unnatural position, that little or no fluid can be withdrawn at all by the use of the aspirator; and it was for dealing especially with the latter class of cases that he brought forward his suggestion, though, if we understand him rightly, he is not indisposed to extend its application to others. The suggestion is to introduce at another part of the chest a needle connected with an arrangement of tubes, by means of which air, which has been previously carbolicised, can be forced at any required pressure (the pressure to be gauged by a manometer) into the pleural cavity. It needs no demonstration to prove that if this be done, and if the point of the canula be kept beneath the level of the fluid, and does not become plugged, it will be possible to withdraw the last drop of absolutely fluid matter as far as any physical difficulties are concerned.

This is the statement of the case; the question of its utility is fairly open to argument, and can actually be only decided by an appeal to experience. For example, in the case of a serous effusion it is held by many that it is not wise to remove the whole of the fluid, which, indeed, we have shown by ordinary methods is impossible; and these may well maintain that nothing could be gained by substituting carbolicised air for the residual serum. To this Mr. Parker will reply by an appeal to his successful second tapping in a chronic case, which was not followed by reaccumulation though the first tapping, conducted in the usual way, had failed; and he will add, air is lighter than water, can probably be more quickly absorbed, and can equally easily be withdrawn if thought advisable; but we repeat, all this is matter to be settled by experience, and not for *à priori* reasoning. If, again, we turn to the case of empyema, many hold—and with great reason—that when once pus has formed it had better be evacuated by means of free incision, which obviously lets plenty of air into the cavity to allow of the escape of the fluid. But, on the other hand, it is perfectly justifiable to reply, there are many cases on record in which simple aspiration, repeated once or twice, has cured the patient, even when, as our argument has shown, pus remained on each occasion in the chest, which the pleural cavity has somehow had to make away with; *à fortiori*, then, if you can get *all* the pus out, and thus leave the pleura in a state, not of tension, but rather of the opposite, may it not happen that, as in the case of an ordinary abscess, when tension is completely removed, serum only will be effused, a material which the pleura will obviously find much more easy to deal with than pus. This, we think, is the problem which Mr. Parker has put before us: it is a new thing, and it would be unwise to pronounce an opinion at the present time very strongly in its favour; but it is rash indeed to condemn a suggestion which has certainly something in it, and may have perhaps a wider bearing than even its author is disposed to assign to it.

A DEMONSTRATION OF DR. KOCH'S TUBERCLE SPECIMENS.

By the courtesy of Mr. Watson Cheyne, a good many members of the profession had an opportunity, on Monday last, of seeing in the physiological laboratory of King's College a demonstration of several of Dr. Koch's specimens of the bacilli of tubercle, as well as of other bacilli for comparison. The tubercular specimens were sent from Berlin in charge of Dr. Goldtdammer. That gentleman brought also, and kindly exhibited, one of Dr. Koch's celebrated

test-tubes containing the bacillus-culture, which was viewed with much interest. There was a coagulated substance in the test-tube, occupying the bottom and extending upwards along one side in a layer of diminishing thickness. On the surface of that coagulum was the culture, a number of small white points of a somewhat soft or velvety appearance, set at considerable intervals in the midst of a thin and clearly distinguishable film. The film in which they were set was over an inch long, and half an inch broad; it came to an abrupt end half-way down the coagulum, and was, in fact, limited to the upper half of the shelving surface, if, indeed, it did not extend also for a short distance on to the bare glass above. The microscopic specimens containing bacilli of tubercle were three in number—one from a caseous mesenteric gland of an artificially tuberculised guinea-pig; another from a lymphatic gland of a tuberculous cow; and the third from acute miliary tuberculosis of the lung in man. No specimen was shown of bacilli present in the tuberculous formations caused by inoculation of pure bacillus-culture. In the specimens from the guinea-pig and cow the bacilli were extremely few in number, casual in distribution, and irregular in size. In the specimen of miliary tubercle from the human lung—in which, by the way, the vaunted staining by vesuvin was not resorted to for the effect—the bacilli were easily seen under a power of about 800 diameters; they were mostly in the interiors of cells, and were often jointed together in twos and threes. All who saw the bacilli of the tubercular preparation must have been struck with their extreme minuteness, as well as their scarcity. Compared with the bacilli in a preparation (also by Dr. Koch) of a lymphatic gland from a case of anthrax, they were several hundred times fewer, and about ten times smaller. The demonstration serves to convey to one a useful idea of the extreme minuteness of the data upon which Dr. Koch's conclusions rest. Much credit is due to Mr. Watson Cheyne for affording an opportunity of seeing the slides under good lenses and with good illumination.

THE WEEK.

TOPICS OF THE DAY.

THE thirteenth annual meeting of the Charity Organisation Society was recently held at the Mansion House, the Marquis of Lansdowne, and afterwards the Lord Mayor, presiding. The annual report presented showed that considerable progress had been made during the year in several departments of the Society's work; nevertheless it is clear that the work and methods of the Society are still regarded with much suspicion, if not disfavour, and that consequently it does not meet with the amount of public support it would seem to deserve. That it does good work in protecting the benevolent public from imposture there can be no doubt; and it has proceeded so far with increasing success. But if it is to fully overcome the prejudices which in one way and another it has unfortunately aroused against itself, it must work with less delay and with constant care against the appearance of narrow harshness, in order to avoid exciting any suspicion that the quality of mercy is sometimes strained. The Marquis of Lansdowne moved "That the annual report of the Council be adopted, and that in the opinion of this meeting the objects and methods of the Charity Organisation Society are worthy of the hearty support of the charitable public as the first organised effort to introduce a sound administration of charity upon the principles of adequate relief, careful inquiry, and the co-operation of charitable institutions and persons for the improvement of the condition of the poor." He said that while wisely directed charity was undoubtedly of great advantage to all, charity which was not wisely

directed was not only unproductive of good, but hurtful in a great degree. No doubt many persons were dissatisfied with the Society's work in some respects; but, after all, the majority of people were coming round to the Society's way of thinking, and had begun to recognise the great necessity which existed for some such organisation for guiding and regulating the policy under which charity should be administered. The Bishop of Bedford seconded the resolution, which was unanimously carried.

A conference of the members of the Charity Organisation Societies throughout the country was also held at Exeter Hall last week, under the presidency of Mr. F. D. Mocatta. A paper was read by Mr. George Whitcombe (Hon. Secretary of the Gloucester Charity Organisation Society) on "The Wants and Difficulties of Charity Organisation in Provincial Towns." In Gloucester, Mr. Whitcombe said, the Society worked in complete unison with the Provident Dispensary movement, and he hoped the Dispensary and Charity Organisation would combine in a vigorous onslaught on the vicious principle of wholesale gratuitous medical relief to out-patients. There were two branches of charitable relief, he remarked, that he should like to see specially encouraged by charity organisation—viz., the nursing of the sick poor, and convalescent homes. With regard to the latter he thought the London society ought to be the centre of the convalescent system, sending to the provincial societies, as well as to the metropolitan committee, periodical information about convalescent homes, their rules and conditions, and the vacancies existing in each.

The Board of Medical Studies of the University of Cambridge have had under consideration what arrangements shall be made for carrying into effect the provision of the new University Statute authorising the conferring of the degree of Bachelor of Surgery. They are of opinion that candidates for this degree should be required to produce certain certificates of study, and pass an examination in surgery *in addition* to what is already required for the degree of Bachelor of Medicine. Candidates to be admissible to the examination for Bachelor of Surgery at any time after they have passed the first part of the third examination for the M.B. degree. But, having regard to the circumstance that under the present Medical Act a graduate in surgery can by registration become a legally qualified medical practitioner (although he may have given no proof of his knowledge of medicine), the Board think that the degree should not be conferred until the candidate shall have also passed the second part of the third examination for the M.B. degree. The Board, therefore, recommend that the examination for the degree of Bachelor of Surgery shall be held twice in each year, certificates being produced (1) of having attended the surgical practice of a recognised hospital during two years at least, and of having acted as dresser or house-surgeon for six months; (2) of having gone through a course of instruction in practical surgery; and that the subjects of the examination shall be surgical operations and the application of surgical apparatus, and the examination of surgical patients.

A deputation from the Paddington-park Committee, headed by Mr. Fawcett, M.P., waited upon the Metropolitan Board of Works recently, and presented a memorial setting forth the altered state of the park question, arising out of the rejection of the Bill by the Select Committee of the House of Commons. Mr. Fawcett said he had consented to accompany the deputation because, although unconnected with the locality it was sought to benefit by obtaining this park, he held very strongly that the health and the moral well-being of the people of the metropolis were so intimately concerned with the increase, or certainly the retention, of

open spaces, as to render it a question in which all London was interested. On the motion of Mr. Urquhart, the memorial was referred to the Works and General Purposes Committee for consideration.

In January last, Mr. Barstow, the magistrate at Clerkenwell Police-court, inflicted upon a Mr. Saunders a penalty of £10 upon each of eleven houses belonging to him in Poplar-place, St. Pancras, for neglecting to provide the necessary sanitary requirements. Against this conviction Mr. Saunders appealed, and the case was recently heard. The evidence showed that the appellant had for a period of forty-four years received from the various tenants sums amounting to £250 a year. In the case of No. 1, which was taken to decide the appeal in all the other cases, there were four rooms on four floors, and occupied by four families. There was a closet beneath the stairs that had no window, but merely a small iron grating; in the partition that divided it from the parlour there was a square of glass, which was, however, broken. There was no water-supply, and no pains had apparently been taken to keep the place clean. For the whole of the eleven houses the only water that could be obtained came from a pump situated in a recess between houses Nos. 3 and 4. The stench was horrible. The service of notices to amend the nuisance was next proved, and also a conversation with the inspector of nuisances for the parish of St. Pancras, in the course of which the appellant admitted the receipt of the notices, but said he did not intend to do anything in the matter. The neighbourhood in which the houses stand was shown to be densely populated, and scarlet and typhoid fevers had, shortly before the examination, prevailed in the locality. Since the conviction the necessary alterations have been made, and on behalf of the appellant it was urged that sufficient time had not been allowed, considering that there were eleven houses to deal with. During the case several legal points were raised, among them being one that the appellant should have been convicted under another section, which limits the penalty to £5. The Bench ultimately decided that the convictions were right and well justified, but they reduced the penalty to £5 in each case, ordering, however, the appellant to pay the costs in each appeal.

The practice of opium-smoking has, it is said, developed in the City of New York to such an alarming extent that the State Legislature has resolved to enact a special measure for its repression. As long as this indulgence was mainly confined to the Chinese and negroes, the authorities did not trouble themselves to interfere with it. Now, however, that American citizens have taken to it in considerable numbers and with deplorable results, opium-smoking establishments are to be put down with the strong hand. The proprietors of these smoking-dens are reported to be making a good thing of their pernicious business; their charges vary from half a dollar to two dollars, and they are beset from morning till night by many more customers than they can accommodate. Centuries ago, the report adds, poisoning was a lucrative profession in more than one European country, although secretly practised; that it should still be so in enlightened America, openly and undisguisedly, is a grave reproach to nineteenth-century civilisation.

A case of special importance to householders recently came before Mr. Commissioner Kerr for decision in the City of London Court. It was an action to recover £50 damages for loss and injury sustained through the alleged defective state of the drainage of a dwelling-house, and the point at issue was whether a landlord was bound by the representations of his agent. The plaintiff, a Mr. Neville, took a dwelling-house from the defendant, Mr. Beresford Smith, through the agent of the latter. The contention

of the plaintiff was that, before taking the house in question, he particularly asked the agent about the drains, as he had a family of young children, and he was positively assured that they were in a perfect and sanitary condition. Soon after he entered into possession, however, serious illness broke out in his family, which was attributable solely to defective drainage, and hence the present proceedings. The defendant was called, and denied that he ever gave his agent authority to make any representations as to the house, that gentleman being merely employed to find tenants and collect the rents. The agent also stated, in evidence, that he had no instructions from the defendant as to what he should say in letting the house, but acted on his own responsibility. The Commissioner gave it as his opinion that it would be a mockery to say that an agent should have everything to do with the letting of a house, without seeing whether it was in a healthy or unhealthy condition. A verdict was eventually entered for the plaintiff, with damages amounting to £35.

The anniversary festival of the Metropolitan Free Hospital was held last week at the Albion Tavern, Aldersgate-street, under the presidency of the Lord Mayor. In the course of the evening his lordship remarked that the Hospital had now arrived at a new era in its history. It had been driven from Devonshire-square, where it was originally located, by the railway company, which required its site. It was then removed to Bishopsgate-street, only again to fall a victim to railway necessities. To compensate them for these removals the railway authorities had been compelled to pay the sum of £25,000, which had formed the basis of a fund for the erection of a new hospital; but there would be little use in erecting a new hospital unless the annual subscriptions were not only kept up, but considerably increased. Before separating, a list of subscriptions was read, amounting in the aggregate to nearly £2000.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At an ordinary meeting of the Council of the Royal College of Surgeons, held on Thursday, the 11th inst., Dr. G. M. Humphry, F.R.S., a member of the Council, was readmitted a member of the Court of Examiners. The Jacksonian Prize of the College was presented to Dr. William Alexander, of Liverpool, a Fellow of the College, for his essay "On the Pathology and Surgical Treatment of Diseases of the Hip-joint." A report was received from the Court of Examiners, to whom it had been referred to consider and report "whether or not it is desirable that all students rejected in the pass examination for the diploma of Member should be placed in the same category as regards the time required to elapse before they can present themselves for re-examination." The Court, having considered the matter, reported as follows:—"1. That it is already provided by Clause 2, Section 9, of the standing rules, that a candidate referred at the pass examination for the diploma of Member may, if the Court shall so determine, be readmitted to the examination within the period of six months after his reference; and that, in the opinion of the Court, it is not necessary to make any alteration of the regulations in respect of the power vested in the Court for shortening the period of reference. 2. That, in the opinion of the Court, however, it is desirable that an additional standing rule should be enacted, giving to the Court, in cases where extreme ignorance is exhibited, the power of lengthening the period of reference from six to nine or twelve months, as the Court shall determine." The report was received and adopted.

A report was also considered from the Nomination Committee in conference with the Committee on Additional Examinations. The Joint Committee had before them the

following resolutions of the Council, dated May 13, 1880, viz.:—"1. That, under the powers given by Section 14 of the by-laws, the Council do proceed, as soon as is practicable, to institute an examination in Elementary Anatomy and Physiology, and in such other subjects as the Council shall from time to time determine, to be passed by candidates for the membership of the College at or after the expiration of their first year of study. 2. That it be referred to the 'Committee on Examinations in Anatomy and Physiology' to prepare, and submit to the Council for approval, the necessary regulations for defining and conducting such examination. 3. That it be referred to the Committee on By-laws to prepare the revised or new formulæ which will be required for the rearrangement of the payment of fees, by the institution of such examination." And, having considered these resolutions, the Committee reported that—"However desirable, it is not practicable to institute an examination in Elementary Anatomy and Physiology at the College without an additional charge to the students; but that, in the opinion of the Committee, it is desirable that, in lieu of the proposed examination at the College, an examination in Elementary Anatomy and Physiology should be instituted at the several recognised schools of medicine after the end of the first year of professional study; and that any student commencing his professional education on or after October 1, 1882, should not be admitted to the primary examination for the diploma of Member of the College without the production of a certificate from his teachers that he has satisfactorily passed the examination in question at his medical school." This report was received and adopted by the Council.

The report of the Vice-Presidents on the Report of the Visitors of Examinations was also before the Council; but this document, as well as that by the Visitors, is at present confidential.

Mr. Thomas Edwards, of Llansaintffraid, Montgomeryshire, was elected a Fellow of the College, his diploma of membership bearing date May 8, 1885.

It was decided that the annual election of Fellows into the Council of the College shall take place on the first Thursday in July.

THE MEDICAL ACTS COMMISSION.

THE Royal Commission on the Medical Acts have held three meetings lately—viz., on May 5, 6, and 8. There were present—the Earl of Camperdown (chairman), the Right Hon. W. H. F. Cogan, the Master of the Rolls, the Right Hon. G. Selater-Booth, M.P., Sir James Paget, Mr. Simon, Professor Huxley, Dr. R. McDonnell, Professor Turner, Mr. Bryce, M.P., and Mr. John White (secretary). We trust the appearance of the report of the Commission may be looked for shortly. Though the subject committed to the Commission is of the greatest importance to the profession, and though it has been so long under discussion and consideration, in various ways, that it might have been expected the Commission would be able to make an early deliverance, we have been content to wait in the hope that a rather prolonged consideration might give us the benefit of a unanimous, clear, and decisive utterance on the various questions that had to be dealt with. But, after a time, delay becomes a danger, if not a confession of weakness and division; and it is getting a matter of grave regret that the profession have still to wait for the report on the Medical Acts.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE College held a special meeting on Monday, May 9, pursuant to summons, to elect a Professor of Ophthalmic and Aural Surgery, in the room of Dr. Swanzy, resigned, when Archibald H. Jacob, M.D., was elected.

THE DUBLIN MASSACRE.

ELSEWHERE we give some account of the post-mortem appearances found in the cases of Lord Frederick Cavendish and Mr. Burke. They tell two things. It is evident that the assassins knew their business, and were practised in the use of the bowie or butcher-knife. They knew where to strike, and how to use their weapons. It is vain to say that Lord Frederick was not aimed at, but only Mr. Burke: four men were employed for the job, and these gentlemen are not wont to risk four lives where two would be more than enough. With deep commiseration for the victims and their families, we have a slight hope that good may come of such terrible deaths; at least they will help to open people's eyes.

THE PARIS WEEKLY RETURN.

THE number of deaths for the seventeenth week of 1882, terminating April 27, was 1341 (705 males and 636 females), and among these there were from typhoid fever 44, small-pox 19, measles 37, scarlatina 3, pertussis 5, diphtheria and croup 69, dysentery 2, erysipelas 15, and puerperal infections 11. There were also 58 deaths from tubercular and acute cerebral meningitis, 243 from phthisis, 44 from acute bronchitis, 117 from pneumonia, 78 from infantile athrepsia (31 of the infants having been partially or wholly suckled), and 36 violent deaths (31 males and 5 females). The number of deaths for this week exceeds the mean of the four preceding weeks, and comparing it with that of the sixteenth week it will be found that there is a decrease of small-pox from 28 to 19, and of erysipelas from 20 to 15; but that the deaths from typhoid fever increased from 37 to 44, from measles from 29 to 37, and from puerperal infections from 7 to 11. The admissions to the hospital for typhoid fever during the week have diminished from 109 to 88, while they have increased for small-pox from 53 to 76, and for diphtheria from 36 to 45—the mortality from these diseases during the week from typhoid and small-pox having been, therefore, the reverse of their morbidity. The deaths from erysipelas are above the average, and those from puerperal infections considerably above it. The number of births only amounted to 1120, viz., 591 males (449 legitimate and 142 illegitimate) and 529 females (388 legitimate and 141 illegitimate): 102 infants were either born dead or died within twenty-four hours, viz., 52 males (42 legitimate and 10 illegitimate) and 50 females (39 legitimate and 11 illegitimate).

MORE TUBERCULAR BACTERIA.

FOLLOWING close on Dr. Koch's announcement of April 10, of the bacillus of tubercle and its infective property, comes another announcement by Professor Baumgarten, of Königsberg (*Centralblatt für die Med. Wiss.*, April 15), of the independent discovery of an organism in tubercle, which may or may not turn out to be the same as the organism detected by the staining method of Dr. Koch. It appears that Professor Baumgarten, writing a year and a half ago on a supposed identity, or at least equivalence, between the *Perlsucht* of cattle and the tuberculosis of man, had prophesied that a parasitic agent would one day be found in the bovine as well as in the human tuberculosis, and, as we read him, the same parasitic agent in both. It cannot be said that he has found bacilli in the *Perlsucht* itself, but he has found them in the tubercular nodules of rabbits that had been inoculated therewith. They are present in innumerable quantities; and wherever the tubercular formations extend, there also are the organisms. They resemble mostly *Bacterium termo*, but they are in general somewhat longer and more slender, less sharply outlined, and, instead of being slightly rounded at the ends, they form knob-like or wedge-like expansions; they are not unfrequently

regular cylinders; they seldom occur in pairs, and never in zooglœa forms. Finally, they are distinguishable from the bacteria of putrefaction (and also from other species of bacteria) inasmuch as they cannot be detected by staining, even when Koch's method of illumination is applied. "The only method," says Baumgarten, "by means of which I have succeeded in bringing the tubercle-bacteria accurately under observation is to treat the sections with very dilute soda or potash." In sections of somewhat older spirit-preparations, even that method fails to detect them; but they are easily found in specimens taken from newly killed animals and cut into sections after having been twenty-four hours in absolute alcohol. This new claimant to the honours of tubercular discovery shows that Schüller's spherical micrococcus cannot have been the true tubercle-parasite, just as Dr. Koch himself has disclaimed Schüller's organisms. Curiously enough, he makes the same distinction as Koch did between Aufrecht's bacillus and his own. Aufrecht's bacillus was half as broad as it was long; whereas both Koch and Baumgarten point out, in the respective cases, that their bacilli are five or six times as long as they are broad. But Koch at the same time admits that his bacilli varied in length between the diameter of a red blood-corpuscle and one-fourth of the same; and, in Baumgarten's woodcut, there are certainly more of the bacilli short and thick, than there are of them long and slender. Whether, in these variations in the size of the tubercle-bacillus, there lies a means of reconciling the discrepant accounts of different observers, we will not undertake to say. But the knob-like expansions of Baumgarten's bacilli—unless, indeed, they were spores—and the method of detecting the presence of the organisms in the tissues, are two points which make that observer's discovery independent of the discovery of Koch.

THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

SOME forty of the physicians, surgeons, and general practitioners resident in Nottingham and the neighbourhood have presented to the Town Council a formal protest against the enforcement by the Council of the clause in the recent Gas Bill obtained by them, referring to the compulsory notification of infectious diseases. They protest, with great reason and justice, against the "practice recently adopted by certain municipal authorities, of inserting into local Acts, clauses which are not connected with the main object of the Bill as revealed by its title, and which frequently contravene the statute law of the land," and they state that they do not think that a measure relating to the public health has any place in a Gas Bill, or that it ought, under any circumstances, to have been inserted without the consent of the profession, or without full discussion by members of the Town Council and by the inhabitants of the borough so seriously affected by it. They state their reasons for considering that it is wrong to impose upon the medical attendant the duty of giving information of the existence of cases of infectious disease. They "warn all concerned" that "compulsory notification" will, as surely as night succeeds the day, lead to compulsory isolation—i.e., the power, to be exercised by the authorities, of compulsory removal of all suspected cases to institutions "which are really pest-houses,"—though they "fully recognise the importance, on the voluntary principle, of segregating patients in certain well-ascertained cases of infectious disease." They call attention "to the fact that the medical practitioners of Bolton, who state that they 'have suffered grievously' under a similar clause which was schemed into a private Bill in 1874, have petitioned Parliament for relief, alleging, among other serious objections to the compulsory notification, 'that by reason of the medical attendant having to give such information, disease is spread and the fatality

increased from their services not being obtained, or only in the latest stages and the severest cases,' and this, we (the practitioners of Nottingham) contend, is the natural outcome of all such attempts to do in one way that which can only be accomplished in another." They point out that it is often absolutely impossible to say, at an early stage of an illness, whether the patient is suffering from any, or what, infectious or contagious disease; and observe that "it is well known that patients not suffering from small-pox have been sent to small-pox hospitals, that patients not suffering from scarlet fever have been sent to scarlet-fever wards, and that patients suffering from slight attacks of one disease have contracted another and died from it." And they assert that there was not the slightest necessity for the obnoxious clause, for they never had objected, and never should object, to give the medical officer of health any information they had "the right to give him, or that would tend to promote the health of the town."

We cannot agree with all the arguments employed in this protest; and think that it would have gained much in force and weight by the omission of some of the statements made in it, and a tempering or modification of others. Thus, it has yet to be proved that hospitals for infectious diseases must necessarily be "pest-houses," if that term is intended to mean houses for exaggerating and spreading disease. But we are entirely in accord with our Nottingham brethren as regards the main points of their protest. We are decidedly against making the notification of infectious diseases compulsory upon the medical attendant; and we entirely disapprove of the subject being legislated upon in private Bills of any kind. It is a matter for legislation by the Government, instead of being left, as hitherto, to be the subject of more or less unscientific experiment by municipal authorities.

THE METROPOLITAN WATER-SUPPLY FOR FEBRUARY.

A REFERENCE to the report of the Examiners on the quality of the water supplied by the Metropolitan Water Companies during the month of February last, shows that some efforts were being made to reduce the shortcomings alluded to in the previous monthly notice. In the first place, as regards the condition of the water previous to filtration, Colonel Bolton says the state of the water in the river Thames at Hampton, Molesey, and Sunbury was good in quality during the earlier part of the month of February, but on the 16th it became bad in quality, and on the 19th very bad, in which condition it remained until the 23rd, when it slightly improved, becoming again bad on the 27th and 28th. The river was in a state of flood during the greater part of the month. The water in the river Lea was also in a bad condition during the whole of the month. Messrs. Crookes, Odling, and Tidy observe in their report that the steady improvement in the colour of the waters, and in their freedom from organic matter, to which attention was called in their last report, has been continued during the month under notice; and this year, more early than usual, the waters have ceased to manifest the features characteristic of the winter season. Dr. Frankland reports that the water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies showed in every case a marked improvement in quality upon that supplied during the months of December and January last. All the water, except that of the Grand Junction Company, which was slightly turbid, was clear and efficiently filtered before delivery. The water drawn from the Lea by the New River and East London Companies, although of better quality than last month, was not superior to the better classes of Thames water. The water of both these companies was delivered in a clear and well-filtered condition.

THE SWANSEA PROVIDENT DISPENSARY.

THE account of the proceedings of the Swansea Provident Dispensary during the past year, presented at the annual meeting recently held, goes still further to confirm the remarks we last week made on the subject of an endeavour to establish provident dispensaries in the metropolis. The Medical Officer's report on the work of the Swansea establishment for 1881, shows that the number of consultations held at the Dispensary was 2856, and the number of visits paid to patients at their homes was 1709. In return for these services the amount received by the medical officers was under £120. After this, the Committee in their annual report may well "again record their thanks to the medical staff for their efficient but ill-remunerated services." The Provident Dispensary scheme, so far as we understand it, would seem to be carried out for everyone's advantage in some way but that of the medical officers, but it is hardly clear why the profession should make all the sacrifice to prevent the pauperising effect of outdoor relief upon the working classes; at the same time, it is perfectly evident that many of the members of these institutions could well afford to pay a reasonable, and yet moderately remunerative, sum for the medical attendance required by themselves and their families. The Metropolitan Association, as a last resource, has applied to the various friendly societies for their co-operation; should this, however, be extensively given, it must act prejudicially to the medical club system at present in force, and it is by no means certain that the new arrangements will turn out to be an improvement on those at present existing.

THE PHYSIOLOGICAL ACTION OF BLOOD-LETTING.

THE unquestionable effect of local depletion in relieving some forms of inflammation appears to have been confirmed and explained by the recent researches of Dr. Genzmer, of Halle (*Centr. f. d. Med. Wiss.*, April 1, 1882). This observer has found that when inflammation has been set up in the web of the frog's foot in the usual way—say by means of a hot wire or by caustics,—and the process is watched under the microscope, it is possible to remove the stasis, to empty the blocked vessels, and so far to relieve the inflammation by applying a leech to the limb of the animal between the lesion and the heart. The actual phenomena attending the resolution of the inflammatory process prove, however, to be the very opposite of what might have been expected. Instead of producing anæmia of the affected area, leeching leads to hyperæmia of the part by drawing the blood from the blocked vessels, and allowing a full and rapid stream to flow once more through them. Thus the leucocytes, clinging to the walls previous to diapedesis, are swept away in the blood-current; and one of the elements of inflammation is rapidly removed. But the abstraction of blood causes more than simple resolution. It is manifest that the free influx of blood into the inflamed area—that is, the hyperæmia—must restore the nutrition of the part, the reduction of which constitutes another of the factors of inflammation. Whether or not the leucocytes which may have already escaped from the circulation into the tissues pass back into the vessels, Dr. Genzmer is unable to say. Results similar in kind, but less marked in degree, followed scarification, instead of leeching, between the inflammatory focus and the heart. Distant venesection produced a decidedly less distinct influence. The results of these observations are decidedly valuable, but their importance must not be exaggerated. In the first place, as Dr. Genzmer remarks, they account for the effect of leeching *above* the seat of inflammation, not *at* or *over* it; secondly, they cannot be said to apply to venesection in visceral inflamma-

tions; and, thirdly, they do not explain the action of leeching or of venesection in the cases where these measures are clinically practised with most success—for example, in cardiac distress or in uræmia. It is possible that the antiphlogistic action of a poultice in inflammation may be the same as the local effect of leeching which has just been described, namely, the reduction of stasis, and the promotion of a free flow of blood through the damaged tissues.

WEDNESDAY, the 10th, was presentation day of the University of London. The gathering on the occasion was unusually numerous, the large theatre of the University building being crowded in every part. For the first time during his sixteen years' tenure of the office, the Chancellor of the University, Lord Granville, was unable to be present; and in his absence the Master of the Rolls, who is Vice-Chancellor of the University, presided. The occasion was especially noteworthy as being distinguished by two new features. The Vice-Chancellor, Sir George Jessel, is a London graduate, and this was the first time that a graduate of London had presided over the ceremonial of Presentation Day of his University; and the gathering was further distinguished by the presence for the first time of female graduates in academical costume.

DURING the present and past weeks 619 students from the metropolitan and provincial schools of medicine have presented themselves at the primary or anatomical and physiological examinations for the membership of the Royal College of Surgeons. This number shows an increase of seventy-six over the number of candidates at the corresponding period of last year.

THE PRINCE OF WALES has consented to preside at a dinner, to be held at Willis's Rooms on Wednesday, June 14, in aid of the funds of the London Fever Hospital.

SIR ERASMUS WILSON regains health and strength, though but slowly. All gastric and intestinal troubles have been entirely got rid of for some time; but some bronchitic trouble, and over-sensitiveness of the pulmonary mucous membrane, still remain, and are probably not likely to disappear till the weather becomes more settled.

BANQUET TO PROFESSOR CHEVREUL.—A banquet, presided over by Dumas, was recently given to the venerable Chevreul on his ninety-sixth birthday. The Café Riche, at which it was given, was elaborately decorated with flowers in honour of Chevreul's skill as a horticulturist, and to typify his valuable work in the art of tinting artificial flowers—an art which owes its remarkable development to his chemical researches. Chevreul has long been celebrated for his discoveries in the chemistry of fats (which, among other results, led to the revolutionising of the art of making candles); and it is an interesting fact that this remarkable man is still engaged in lecturing on chemistry and in conducting original investigations.—*Phil. Med. News*, April 1.

AN ABNORMAL STYLOID PROCESS AS A CAUSE OF DIFFICULTY IN SWALLOWING.—In No. 5 of the *Wien. Med. Woch.*, Prof. Weinlecher relates two cases which have occurred to him during the course of his practice, in which a hard body, causing some pain and some difficulty in swallowing, was found on examination with the finger to consist in a prolongation of the styloid process from a commencing ossification of the stylo-hyoid ligament. Both occurred in women, and in one of the cases he gave relief by making firm pressure and producing an audible fracture of the body, although in a few months the inconvenience recurred and was relieved in a similar manner. In the other case the inconvenience had persisted for three years, and an attempt to produce a fracture failed.

THE ASSASSINATION OF LORD FREDERICK CAVENDISH AND OF MR. THOMAS H. BURKE.

THE following medical evidence was given at the inquest held on Monday last on the bodies of the latest victims of sedition in Ireland, the unfortunate Chief Secretary to the Lord Lieutenant, and the Under-Secretary, who were murdered in the Phoenix Park on Saturday evening, May 6:

Dr. Thomas Myles, Resident Surgeon, Steevens' Hospital, deposed that at about eight o'clock on Saturday evening the remains of the deceased gentlemen were brought to the hospital. About ten minutes past eight o'clock a policeman ran in and announced that the Under-Secretary had been wounded near the Phoenix statue, and asked me to come out and try to be of some assistance to him. I told him to get a car. I went with him. Near the park gate I met the police with the body of Mr. Burke, which I examined. I thought I felt a flickering of the pulse, but I think since that, owing to my excitement, I was not in a fit state to judge. Half a mile further on I met some guardsmen with the body of Lord Frederick Cavendish. I examined it and found it dead. The bodies were brought into the hospital. Both were dead. I assisted at the post-mortem examination.

Mr. George H. Porter, Surgeon-in-Ordinary to the Queen in Ireland, deposed, in reply to the Coroner: By direction of the Coroner, I made a post-mortem examination of the remains at the Chief Secretary's Lodge yesterday, assisted by Mr. Hamilton (Surgeon to the Hospital), Mr. Ormsby, Mr. Myles, and Dr. Tweedy. I first examined the body of Mr. Burke, and found his clothes cut in several places. Then, on examining his body after the clothes were removed, I found several wounds. There was a deep and long wound on the front side of his neck. There was a wound about an inch above the nipple of his left breast; there was a wound over the cartilage of the second rib on the same side; another wound over the breast-bone; two slight wounds on the index finger of the left hand; a wound on the second finger of the same hand, splitting the nail and the finger for half an inch; a deep wound over the inferior angle of the shoulder-blade (scapula), at the back; a deep wound on the right side of his neck, penetrating towards the spine. These were the external wounds. Then I opened his chest. The wound in the front of the neck did not sever any large vessel, although deep. The wound over the cartilage of the second rib wounded the apex or top of the left lung. From it there was copious hæmorrhage into the mouth. The wound over the inferior angle of the shoulder-blade penetrated the pericardium and entered the heart. That was inflicted in the back, over the scapula. I may state to the jury that the pericardium is the bag in which the heart moves; it was filled with blood from the heart. That wound must have caused death immediately.

From the nature of the wounds, do you think the gentleman was attacked from the front and rear at the same time? I think so, and the wounds on his hands seem to show he was defending himself. My opinion is, he was struck from before and behind.

Having reference to the size of the stabs, their depth, width, and so forth, can you form any opinion as to the weapons used?—I believe the opinion is that all the wounds were either produced by a dagger or a long sharp knife.

Were they all punctured?—The wound in the neck seemed more like a gash or a cut; its edges were remarkably clean, as if the instrument was very sharp.

The Attorney-General: In your opinion, from having seen the body, do you think a struggle took place?—Well, the only thing that would lead me to suppose that a struggle took place was the wound on the hand. I believe the wound in the lung would also have caused death.

[The gloves worn by Mr. Burke were produced, and the cuts in them examined.]

We then examined the remains of Lord Frederick Cavendish. I found his clothing cut in several places. I found a deep transverse cut on the middle of his left forearm. That wound cut through the muscles and fractured one of the bones of his forearm—the ulna. A small portion of the bone was sliced off as if done by a sharp instrument.

It must have been a highly tempered weapon to cut the bone. I then found a deep wound in his right axilla, or, as it is usually termed, armpit. That passed up to the shoulder-joint actually to the articulation, but did not open the joint. I found a slight abrasion over the malar or cheek-bone. I found a wound on the right side of the root of his neck over the collar-bone. I found a wound over the cartilage of the second rib on the right side. I now come to the posterior part. On the back I found a deep angular wound over the right shoulder that penetrated to the upper part of the shoulder-blade—to the bone. I then found a deep wound on the outer edge of the inferior angle of the right scapula, damaging the bone. I found a wound over the centre of the back of his neck, injuring the sixth cervical vertebra. I opened his chest. I could not find the cause of death there, and then, on carefully dissecting the wound at the back of the left shoulder, I found that it had cut across the right axillary artery and axillary vein. The axillary artery is the large artery in the armpit. This wound caused death very rapidly.

Were the wounds, in your opinion, inflicted by the same class of weapon?—Yes. It is an extraordinary thing that the wounds in each case were nearly all the same size, and the clean edges were also remarkable. The weapons must have been very clean and well tempered. They were all punctured wounds, with the exception of one in the arm, which appeared to be a gash. There was an abrasion on the right knee as if he had fallen.

The Attorney-General: Did Lord Frederick's body present an appearance as if he had struggled?—I should say from the wound under his arm that there had been a struggle.

Dr. Edward Hamilton deposed: I am one of the surgeons of this Hospital, and I made the examination with Mr. Porter, assisted by two other gentlemen. I completely concur with the evidence he has given.

In reply to the Coroner, the other surgeons who had assisted expressed their concurrence. The evidence given by Mr. Porter expressed the results of their joint investigation.

IODOFORM IN ANAL FISSURE.—Dr. Seeger, writing to the *New York Med. Record* (April 8), gives an account of the great benefit he had derived in his own person by treating fissure of the anus with iodoform suppositories of three-grain doses. He has since used them with great benefit in many cases. A mild aperient should be given until the healing process has sufficiently advanced, and the patient should be cautioned against a constipated habit.

CONSULTATION WITH HOMŒOPATHS IN NEW YORK.—The resolution passed recently by the New York State Medical Society, sanctioning the meeting any practitioner in consultation who has obtained a diploma, has been received with universal disapprobation throughout the United States. In this way homœopaths, botanists, eclectic, etc., who all have some kind of a diploma, are admitted to professional recognition. The *Philadelphia Medical News* has collected and published the opinions of the American medical press far and wide, and the disapproval (excluding the New York journals themselves) seems to be quite unanimous.

WHAT ARE THEY GOING TO DO?—The graduation of 5000 or 6000 young men during the present spring, the *New York Med. Record* (April 1) observes, is an event of deep importance. The *New York Times*, which always discusses medical matters with more than ordinary fairness and intelligence, has recently applied itself to the problem. According to it, in the United States there is now one physician to every 500 inhabitants. The ratio of sick to well during the year is estimated at about twenty per thousand, including paupers. This would give about ten patients to each practitioner, but of these many are too poor to pay, and many do not call in a physician, so that five or six patients are all that can be allowed for each medical man. Another method of studying the question is as follows:—The ratio of deaths is, for the whole country, not far from twenty per thousand. This would give 250 patients a year for each practitioner. But this number must be reduced nearly one-half by subtracting those who do not pay, and those who are not ill enough to need a doctor. With the present number of practitioners, therefore, there would be two or three patients a week for each, if they were equally divided!

FROM ABROAD.

THE TREATMENT OF DIABETES.

DR. A. A. SMITH read a paper at the New York Academy of Medicine (*Phil. Med. News*, February 25), entitled "Clinical Observations on Diabetes Mellitus," in which he related five cases that had occurred in his practice within the last three years. All these were instances of disturbance of the nervous system, not from injury or sudden shock, but from continuous mental strain. They all occurred in private practice, and in persons exceptionally well off. In all there was disturbance of the hepatic and gastric digestion, and in all there was an excessive fondness for sweets—an important fact in relation to the disturbance of digestion. Some of these had albuminuria or suffered from malaria. Two had a gouty tendency. In none was there any disturbance of the vision or affection of the skin. The treatment adopted was the same in all these cases, and consisted in administering a quarter of a grain of codeia three times a day after meals, increasing the dose gradually to one grain; also twenty drops three times a day, after meals, of tincture of chloride of iron. Constipation, which was a prominent symptom, was kept under by a laxative pill consisting of aloes, nux vomica, rhubarb and extract of hyoscyamus. They were furnished with a written diet-list, as follows:—Vegetables: tomatoes, celery, cabbage, lettuce, cucumbers, spinach, radishes, mushrooms, cauliflower, asparagus, truffles, oyster-plant, onions, watercress, olives, tea and coffee without sugar, and all kinds of nuts. Gluten bread and almond-flour bread were employed. They were allowed to take as much water as they liked, and to take meats, fats, oils, cream, butter, poultry, fish, eggs, cheese, and milk. Of drinkables, brandy, whisky, claret, burgundy, very dry sherry, and the acid Rhenish wines were allowed. Four of the patients had entirely recovered, and one was still under observation. Of those who had recovered, one had had no sugar in the urine for seven years, and three none for two years. All had resumed their occupations and were actively engaged. Treatment had been continued for about four months after all sugar had disappeared, the chloride of iron having been continued much longer on account of the anæmia. One of the patients was a lawyer, one a literary man, one an artist, a fourth a railway director in a large way of business, and the last a lady of independent means—their ages being forty, forty-six, forty-nine, sixty, and sixty-three.

Dr. Smith believes that in a majority of cases diabetes has its origin in the nervous system, and that codeia acts beneficially, not only as a direct sedative on the nervous system in general, but especially on the pneumogastric nerve—accepting the theory that disturbance of the glycogenic function of the liver is probably due to influences acting through the pneumogastric, the disturbance being entirely secondary. He thinks that there are probably many cases of diabetes which are unrecognised, and which, if treatment were begun sufficiently early, could be cured; and in two of his own cases Dr. Smith was surprised at finding sugar while in pursuance of his plan of examining the urine of almost every patient. The results of treatment in these five cases ought to encourage a more cheerful view of the prognosis of the disease than has hitherto been taken.

At the discussion which followed, Dr. Austin Flint, sen., observed that either diabetes is a much more frequent disease than formerly, or it is more frequently recognised, for he has met with almost a great number of cases during the last five or six years than during all his former medical career. The disease was probably very often overlooked formerly, examination of the urine being much less frequent, and usually directed only to the detection of albumen and casts. Again, in some stages of the disease, there may be no increase in the quantity of urine passed, nor excessive thirst, nor any symptom to excite suspicion of the disease. In several cases, to his own knowledge, the disease has been accidentally discovered during an examination of the urine. A patient came to Dr. Flint, apparently in full health, complaining only of a kind of itching in the penis, which both the patient and his adviser thought hardly worth consideration. The urine, however, was examined, and was found loaded with sugar. The patient soon recovered, and no recurrence during the

two years that have elapsed has taken place. "I therefore very strongly recommend Dr. Smith's plan of making an examination of the urine in all cases. I have seen a number of cases in which the quantity of urine and its specific gravity were not increased, and in which there was not a notable degree of thirst. I am also glad to concur in his statement respecting the grounds for a favourable prognosis in a considerable number of cases. I have notes of quite a number of cases in which the recoveries have been persistent. I have found that the dietetic treatment will cause the sugar in the urine to disappear or be reduced to a very small amount in a short space of time. In this connexion, I will say that the important treatment seems to be dietetic; and I think that failure, in many cases, is due to want of thoroughness in its being carried out. I do not mean that patients do not rigidly adhere to the diet, but that the diet should be made satisfactory to the patient. My rule, for a considerable time, has been to give to these patients a list of every article which they may take, and every article which they must not take, so that they can have it before them. If the physician be content with general statements, the treatment will be pretty sure not to be carried out. The great difficulty is in regard to bread; very few patients will eat bread containing no starch. They soon tire of it, and finally it becomes impossible for them to get along with it; I therefore give them an article which is not entirely free from starch, though it contains very little (prepared by the New York Health Food Company). With this they get along very well. If the matter of bread can be disposed of, the other articles of food are so varied that patients can make a satisfactory menu." As for codeia, Dr. Flint only uses it for the relief of weariness of limbs, cramp, and insomnia, never depending upon it for a cure. With regard to the sulphide of calcium, recommended by Dr. Husted, although commencing its trial with much scepticism, he believes, after using it in many cases, that it does possess a certain amount of curative agency. Referring again to a favourable prognosis, Dr. Flint said, "I am cognisant of at least half a dozen persons in this city who have diabetes, and who are in the enjoyment of comfortable health, and doing laborious work, most of them finding it necessary to observe more or less strictly the dietetic treatment. With proper care and proper means—for it is pretty difficult for a poor man to carry out the treatment—I do believe that by dietetics alone, in a certain number of cases, if not a complete cure, the holding the disease in abeyance will be effected, and the general health remain excellent."

Dr. Hubbard said that he had seen several cases of diabetes, and now had had two under treatment, one for four and the other for two years. He employed the dietetic treatment in conjunction with a tablespoonful of brewer's yeast three or four times a day. Dr. Kinnicut remarked that it seemed of importance to bear in mind that there are, apparently, two distinct forms of the affection. In one the patient can digest only a small quantity of sugar, and these cases can be readily controlled by strict dietetic treatment. In the other there is a serious diversion of the glycogenic function of the liver; and as these cases are never fully controlled, a guarded prognosis should be given. It is in these cases that very slight causes will produce that state known as diabetic coma or collapse, in which the patient, almost without warning, passes into collapse and dies. Dr. Peters had for many years adopted the view of the nervous origin of the disease, and had looked upon nux vomica as the best remedy, he having seen its use followed by benefit in a good many cases, and by a cure in some. He quite agreed with Dr. Kinnicut that in about one-half the cases the dietetic treatment was beneficial or curative; while in the other half, for the most part, only very slight benefit was derivable from it. In young children the disease is frequently fatal, but in advanced life it is milder and more amenable to treatment, middle-aged subjects furnishing the most serious cases. There are two classes of patients—one, stout and obese, in which the disease is quite manageable; the other, thin, nervous, and more or less debilitated, in which it is very unmanageable. There are either two forms of the disease or two stages.

THE ADMINISTRATION OF CHLOROFORM.

The *Gazette des Hopitaux* (April 22), at the end of the resumé of the prolonged discussion on this subject which

has just terminated at the Académie de Médecine, furnishes the following account of the rules of procedure observed by a *collaborateur* who has been greatly employed, with constant success, in the administration of chloroform during the last ten years:—1. The compress is to be preferred to all other means; a handkerchief is to be had everywhere, and alarms the patient less than anything else. 2. Fold the handkerchief into the form of the mouth of a horn, and keep it closely pressed against the point of the nose; but only pour the chloroform on the part of it which is not directly in contact with the skin. 3. Its application should be intermitted, but this need not be done in the precisely regulated manner recommended by Prof. Gosselin. 4. Give very little chloroform at the commencement, in order to accustom the patient to it and prepare him for the feeling of suffocation. Then, when the first inspirations are over, pour on the chloroform very often, otherwise much time will be lost, and complete anaesthesia obtained only with difficulty. 5. Before commencing the application, take care that no article of dress constricts the patient, removing even the string of a cap. 6. Expose the epigastrium, and from the very commencement keep the eye on it and *constantly* watch the respiration, without caring about the pulse. 7. Always have a forceps within reach. 8. As soon as the respiration becomes noisy and stertorous, remove the compress and allow the patient to breathe fresh air for a time. 8. When respiration is arrested, seize the tongue with the forceps and draw it out, and immediately commence artificial respiration. If the respiration is not re-established after a few seconds, place the head low, forcibly flagellate the cheeks, keep the tongue out, and continue the artificial respiration for five, ten, fifteen, or even twenty minutes, if necessary. 9. When the respiration is noisy, pass into the back of the throat a sponge mounted on a forceps, in order to remove the mucosities existing there—as they frequently do in patients suffering from colds. 10. There is but one contra-indication to the employment of chloroform—viz., advanced phthisis. Affections of the heart are not contra-indications. 11. Hysterical subjects should be distrusted. 12. Alcoholic subjects are very long and difficult in being brought under the influence of chloroform, but they are not dangerous.

GENERAL CORRESPONDENCE.

TUBERCLE AND BACTERIA.

LETTER FROM DR. W. DALE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am glad to see that you have had the courage to call in question Koch, and Tyndall's conclusions respecting tubercular disease. I say *have had the courage*, for it seems to me that the scientists of the day are absurdly dogmatic, and so "puffed up" with the *aura popularis* as to have become quite impatient of contradiction.

Permit me to supplement your articles on this subject with one or two thoughts which have occurred to me since reading Professor Tyndall's letter in the *Times*.

It has long been known that certain bacteria, vibrios, etc., find a proper *nisus* in the degenerations of tubercle; but they have always been regarded as effects, and not causes, of pulmonary consumption; so that in Koch's finding a parasite (vegetable or animal) in tubercular matter there is no new thing, though it may have a new form, and has certainly been honoured by a new name.

Further, it is also well known to physiologists and others who have given special attention to the subject before us, that brain, pus, cheese, putrid muscle, etc., when inoculated will produce morbid results in various organs, *which cannot be distinguished from those produced by the inoculation of tuberculous matter*. How, then, can the morbid products of the inoculation of tubercle be considered as in any sense *specific*?

In my humble judgment, all the results obtained by the inoculation of the so-called *bacillus*, as practised by Koch, were much more likely to be pyæmic in their nature, and such as the introduction of *septic* matters into animal bodies will generally produce, rather than anything unique or specific. But then it will be said, Mr. Editor, that neither you nor I possess the scientific faculty, and therefore, how should we know! The *Times* is unfair. It will afford ample

space to any novel subject which happens to be popular, and announce its birth too in a flaming leader, but its columns are generally too full for a rejoinder.

I am, &c., WM. DALE, M.D. Lond.

King's Lynn, Norfolk, May 3.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 25.

JOHN MARSHALL, F.R.S., President, in the Chair.

ON WOUNDS OF THE THECA VERTEBRALIS, WITH DISCHARGE OF CEREBRO-SPINAL FLUID.

MR. T. HOLMES read a paper on wounds of the theca vertebralis with discharge of cerebro-spinal fluid. Referring to a case published in vol. lx. of the Society's *Transactions*, in which a copious flow of limpid fluid took place from a wound in the back, and in which it was believed that the ureter was wounded, though it was also admitted as possible that the fluid might have been cerebro-spinal, the author related two cases—one under his own observation, in a patient of Mr. Rouse's, at St. George's Hospital; the other from the *Lancet*, in which a similar copious discharge of watery fluid was caused by a wound of the spinal membranes not involving any wound of the cord or large nerves, as proved in one case by post-mortem examination, and in the other by the position of the puncture. Such wounds do not of themselves produce any symptoms, the loss of fluid being gradual, and the fluid no doubt rapidly re-excreted. Inflammation around them may interfere with the functions of the cord or nerves even to a fatal degree, and there seems some warrant for believing that the very sudden withdrawal of large quantities of the fluid (as in operation for spina bifida) may produce dangerous syncope.

MR. JONATHAN HUTCHINSON referred to cases of injury of the head, where there was often discharge of fluid by the ear, and where recovery might follow; whereas, in cases of spina bifida, where there was puncture or rupture, arachnitis was apt to supervene.

MR. THOMAS SMITH said that both in cases of puncture and rupture of spina bifida the escape of the fluid might be almost harmless for a time, yet when the drain was long continued it was often followed by inflammation of the membranes, and death. Spontaneous rupture of the sac was different, as that might be the beginning of the few cases of natural cure which took place. In the case of a child with a large spina bifida, which was opened, recovery seemed likely at first to occur, but at last the child died. It would not be wise in cases of supposed wound of the theca vertebralis to wait until a certain diagnosis was made.

MR. MORGAN had assisted Mr. Holmes in an operation on a child which had a large pedunculated tumour just below the middle dorsal region. It contained fluid which could not be forced into the spinal canal. The tumour was removed, but when the pedicle was cut through the child suddenly became so ill that it died in twelve hours. Mr. Holmes suggested that this was due to the carbolic acid, but he rather attributed it to injury of the connexions with the spinal cord. Mr. Morgan had also had under his care a child having a pedunculated tumour, with no apparent connexion with the spinal canal. He introduced a small trocar, and a little iodo-glycerine was injected; this was prevented from reaching the spinal canal by tying the neck of the tumour, but the child died. He had seen a case where a midwife had cut a spina bifida with a pair of scissors, in which the child recovered.

DR. WHARRY thought the symptoms in operation for spina bifida were not immediately produced, as the fluid had slowly to make its way through the subarachnoid space.

THE PRESIDENT thought that it was possible to make an early diagnosis of injury to the theca vertebralis, except when inflammatory products might be mingled with the ordinary fluid. Such an injury was less dangerous low down than high up in the back. In a case of spina bifida, where he injected iodine (taking care that it should not reach the canal), the child fainted and had convulsions.

MR. HOLMES was unavoidably absent.

SUGGESTIONS FOR THE TREATMENT OF SPECIAL CASES OF EMPYEMA BY THORACENTESIS AND THE SIMULTANEOUS INJECTION OF PURIFIED AIR.

Mr. R. W. PARKER read a paper on the treatment of special cases of empyema by thoracentesis and the simultaneous injection of purified air. The author commenced his paper with the record of a case of empyema in a child, aged three years and three-quarters, who had been in the East London Children's Hospital under the care of his colleague, Dr. H. Donkin. The physical signs pointed with great clearness to a very large effusion; but on attempting aspiration, only four ounces could be withdrawn. A few days later a further attempt was made, and with no better result, although the chest-wall was punctured in two or three places. Finally, a free incision was made, when between forty and fifty ounces of fluid were got out. The child ultimately recovered, with hardly any deformity, although she had an attack of small-pox while the empyema was still discharging. The mechanism of tapping was then referred to. He reminded the Society that it was *vis a tergo* which expelled the fluid, rather than a *vis a fronte*, which sucked it out. Either the lung re-expanded, or the diaphragm rose, or the chest-wall fell in. There were cases, however, in which, owing to rigidity of the chest-walls and binding down of the lung, this expulsive force was reduced to a minimum, and additional means became necessary in order to empty the abscess-cavity. Dr. Bouchut, of Paris, had published a case similar to his own, and had proposed to forcibly expand the lung through a tube introduced into the bronchus. Instead of this somewhat heroic treatment, it was suggested that filtered and carbolicised air should be introduced into the pleural cavity, in order to displace the fluid. A suitable apparatus for this purpose was shown, and its mode of use demonstrated to the Fellows present. At the completion of the operation it was stated that the air in the empyema-cavity ought to be somewhat less dense than the external air, so that the lung might be in a position to re-expand from the first; while the gradual absorption of the air would keep up that advantage during the period of cure. It was contended also that the presence of air in the chest under such circumstances, by supporting the vessels, would tend to hinder the re-accumulation of fluid, which a condition of vacuum, as under ordinary circumstances, would rather tend to promote. A case under the care of Dr. Symes Thompson, in which this plan of treatment was successful, was referred to. Cases also were mentioned in which there had been difficulty in withdrawing the fluid, depending on other causes, and particular stress was laid on them, for in such cases the injection of air into the pleural cavity would not suffice to overcome the difficulty. The author specially emphasised that his "plan of treatment is adapted chiefly for those cases in which the difficulty of getting out the fluid depends on rigidity of the wall of the empyema-cavity." This condition is most likely to occur in adults, although the case mentioned at the commencement of the paper was a typical one, occurring in a young child. He recommended its trial before "free incision, which is a somewhat severe measure," is adopted.

Dr. SYMES THOMPSON said that in his case the results were very satisfactory, the fluid being removed and the air introduced without any discomfort to the patient. He thought that no double opening would be found necessary, and the plan seemed specially adapted to elderly people with inelastic chest-walls; but in cases where the fluid was purulent he would prefer a free incision at the point where the discharge generally occurred spontaneously.

Dr. DOUGLAS POWELL thought the case operated on by Mr. Parker peculiarly well suited for the operation. Dr. Hicks had done a similar operation on a patient where the fluid could not escape owing to the inexpandibility of the lung. It was a question whether the same end might not be attained by simply opening the chest-wall under the carbolic spray. He had seen, however, a case where the fluid did not escape, probably owing to layers of fibrin having been cut through at a different angle from the outside opening, but where there was a sudden escape during the night. He did not consider it wise to remove all the fluid at once where it was only serous, but where it was purulent free opening and free discharge were best.

Dr. REGINALD THOMPSON hardly thought that Mr. Parker's cases supported his views.

Dr. COUPLAND thought that the plan might have been useful in a case in the Middlesex Hospital, where the lung was bound down by adhesions; the fluid became purulent, and the patient died.

Dr. WARNER considered that by this means freer entrance and exit of air were allowed, and the lung got more rest.

Dr. HICKS had introduced air into the pleura at the Brompton Hospital in a case of long-standing effusion. The effusion returned, but in smaller quantity. In a case of acute empyema the air was introduced in a different way; and in a third it was used to prevent dragging of the lung, but the cavity was washed out with Condy's fluid. The introduction of air prevented the troublesome cough which followed removal of the fluid, but an elastic bandage round the chest did equally as well.

The PRESIDENT did not think that rigidity of the chest-walls alone would prevent escape of fluid, as the other organs might act upon it. A fluid might be used for injection, and some had recommended oil.

Mr. PARKER was pleased that his paper had been so freely discussed. He said that many of the objections raised to the plan of treatment had been anticipated in the paper. Its title met one of the principal of these—the class of case in which it was to be used, viz., in *special* cases of empyema,—while the cases referred to in the body of the paper showed that he was alive to some, at least, of the other difficulties besides rigid chest-walls which interfered with the expulsion of the fluid. Doubtless free incision was an excellent method of treatment, and gave good results; but there were, nevertheless, cases which even after incision could not be cured. He had met with at least two cases of this kind in children under fourteen years of age, and he believed that his treatment might prove useful in such circumstances. In the first case related he had guarded against all fallacies, and believed the difficulties were purely physical, such as were at once overcome when air was freely admitted. He was led to this belief by Bouchut's case, which he had referred to, and by the cavity which he believed existed in some degree after aspirating in the usual way. Such cavities must necessarily be more or less in a state of vacuum, and greatly favour the re-accumulation of the fluid. He agreed that the needle must be long enough to reach the lowest part of the cavity, or the fluid could not be drawn off. In the case referred to by Dr. Powell and Dr. Hicks, he was pleased to find that the fluid had not re-accumulated, for that substantiated one of the advantages he claimed for the method, viz., that the fluid was less liable to accumulate than under the ordinary methods. Lastly, his cases showed that there was no danger in the plan, and that subsequent measures could be taken if necessary. Such collections of pus ought to be treated on the same principles as other abscesses; and if it was right to open them at all, he thought they should be emptied, and that when they could only be emptied by letting in air, there would be no inconvenience in so doing.

Mr. Parker's apparatus was shown at the close of the meeting.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 28.

JOSEPH LISTER, D.C.L., F.R.S., F.R.C.S., President,
in the Chair.

ANTISEPTIC LIGATURE OF ARTERIAL TRUNKS IN THEIR CONTINUITY.

Mr. HECTOR C. CAMERON, Glasgow, read the notes of cases of antiseptic ligature of arteries in their continuity, which included all in which he had performed such an operation, whether for aneurism or accidental wound. The material employed was antiseptic catgut (prepared by one or other of the methods suggested by Mr. Lister), of medium size, and tied in a reef-knot with sufficient tightness to insure division of the internal and middle coats of the vessel. Very accurate coaptation of the cutaneous margins of the wounds was practised by stitches of carbolicised silk or silkworm gut, with an occasional stitch of thick silver-wire for purposes of relaxation where that seemed desirable. Free drainage was effected by means of india-rubber drainage-tubes in

all the cases except one, in which a number of strands of carbolised catgut were employed. The operations, as well as the subsequent dressings, were conducted with rigid antiseptic precautions. The author's notes of the cases were as follows:—*Case 1.*—A labourer, aged thirty-eight, in good general health, was admitted into the Royal Infirmary on July 17, 1876, with a large aneurism of the lower and inner part of the left arm. About six months before he was struck by a rivetting-hammer in that situation, and a few days afterwards he observed a slight swelling, which throbbed strongly and occasioned him pain. This had increased slowly till a week before admission, when it began to progress rapidly. On July 20 I tied the brachial artery with carbolised catgut in the first part of its course; and on the 30th the wound was sound, having furnished throughout only a slight sero-sanguineous discharge, and having been free from any pain or swelling. On August 7 he was dismissed. He was re-admitted to my wards in the following winter, suffering from a limited mortification of one or two toes, from which he also made a good recovery. His arm, he said, was as strong and useful as ever. *Case 2.*—An old soldier, aged forty-four, was admitted into the Royal Infirmary on July 14, 1880, with a large popliteal aneurism, extending as high as the junction of the lower with the middle third of thigh on its inner side. A month before he noticed a small pulsating tumour at the back of the knee, which he felt suddenly give way on July 8, while he was at work. On examining the part he found that the swelling had greatly increased, while the pain became so severe as to make him discontinue work. From that date the tumour had steadily increased in bulk. Pulsation could be distinctly seen and felt in it, and was controlled by compression of the femoral. There was some œdema of the foot and leg. On July 19 I ligatured the femoral artery at the apex of Scarpa's triangle with carbolised catgut. On the 21st the dressings were changed, and the drainage-tube removed. They were also changed on the 24th, 27th, and 29th, when the wound was soundly healed. The tumour decreased in size, only very slowly, and he was not dismissed until September 17. The discharge from the wound was, throughout its healing, serous in character, and there was no constitutional disturbance, except a slight rise in temperature during the first few days after the operation. Two months afterwards he returned to show us that the last traces of the tumour had disappeared, and to report himself as being in excellent health. *Case 3.*—Mr. H., a commercial traveller, aged thirty-two, was seen by me in consultation with his usual medical attendant in September, 1880, on account of an aneurism about the size of an orange which occupied the right ham. It was said to be distinctly increasing, and occasioned much uneasiness in the limb. He had been a robust man always, but was unusually corpulent. He was married, and the father of three healthy children. On September 23, 1880, I tied the femoral artery at the apex of Scarpa's triangle with antiseptic catgut, when all pulsation ceased in the tumour. At the third dressing, on October 1, the wound was found firmly healed except where the drainage-tube had lain, and in a few days this spot was also cicatrised. The temperature was normal throughout, and the patient's general health undisturbed. When he returned home on October 11 (exactly eighteen days after the operation), the aneurism was much reduced in size. He is now quite well, and attends to all his ordinary business without inconvenience. *Case 4.*—T. L., aged forty-three, was admitted into the Royal Infirmary on February 12, 1881, on account of an aneurism of the femoral artery just under Poupert's ligament, extending both above and below that structure. He was a janitor of a boys' school, but had been for many years in the Navy. He had once been laid up by an attack of jaundice, and had suffered from syphilis in youth. In June of the previous year he first noticed a pulsating tumour, about the size of a marble, in the groin, which gradually increased until his admission. On February 15 I tied the external iliac artery with a piece of antiseptic catgut given to me by Mr. Lister, and which had been prepared by a method described by him in the *Lancet* of February 5, 1881, both chromic acid and carbolic acid being made use of. The patient progressed without any fever or pain in the wound. The wound was healed throughout, except where the little piece of drainage-tube lay. The aneurism was firmly consolidated, and had undergone a marked decrease in size. In a week afterwards, on removal of

the dressing, cicatrisation was found to be complete, and on March 20 he was allowed to leave his bed. On the 30th he returned home. He lately consulted me on account of a slight tendency to the formation of a hernia at the outer end of the cicatrix, and I recommended the use of a truss. All trace of the aneurism is gone, and he is in excellent health. *Case 5.*—Mrs. W., a widow, without family, aged fifty-seven, consulted me in the beginning of last month in regard to a pulsating tumour just above the right sterno-clavicular articulation. Dr. Finlayson, one of the physicians of the Western Infirmary, saw and examined her on March 22, and has furnished me with the following note of her case:—“There was a very distinct pulsating tumour, involving apparently the innominate artery. It could be felt as a movable tumour, sliding to some extent behind the sterno-mastoid on being handled. Pulsation continuous with it extended into the sternal notch, and in that position had a heaving character. An obscure shock, coincident with the second sound of the heart, could be felt in the upper part of the sternum and contiguous part of the chest-wall, but no heaving impulse. On auscultation the most prominent fact was the greatly deepened quality of the second sound, but no murmur was audible in any part of the chest. There was a pronounced area of dulness extending from the right sterno-clavicular region towards the cardiac dulness, and measuring about two inches transversely. There did not appear to be any marked cardiac hypertrophy. The radial pulses were as nearly as possible equal, and there was no difference in the size of the pupils. No pressure signs were recognisable, and the patient does not appear to suffer much inconvenience from the disease. The signs seemed to me to indicate clearly an aneurism of the arch of the aorta of considerable size, and specially involving the innominate artery.” On March 24 I tied the right subclavian and carotid arteries with antiseptic catgut given to me by Mr. Lister. It had been prepared by immersion in a 1 per cent. solution of chromic acid for twelve hours, and afterwards for twelve hours in the solution of sulphurous acid of the British Pharmacopœia. Both ligatures were placed in a watery solution of carbolic acid (one to twenty) for about half an hour before being used. The wounds were dressed four times (on March 26, 29, April 2 and 5), and on the removal of the last applied dressing, on April 12, were found to be healed. There was no constitutional or local disturbance, the temperature continuing normal throughout. On April 12, Dr. Finlayson again examined her, and reported as follows:—“The incisions are now healed. The defined tumour described as existing behind the sterno-mastoid muscle cannot be recognised; but there is marked pulsation in this situation, and the pulsation extends towards the sternal notch in a very pronounced manner, and is associated with much heaving there. Indeed, the heaving pulsation at this point seems to me to be more marked than before the operation, although the whole pulsating area is, no doubt, less. The dulness on percussion in the upper part of the chest, the deepened second sound, and the sense of shock on application of the hand, still continue very distinct. The radial and temporal arteries do not pulsate on the right side.” In these five instances of aneurismal disease, it will thus be seen, six large arteries were ligatured. In each complete and permanent occlusion of the vessel was obtained without any constitutional or local disturbance, without any rise of temperature (if we except the case of diffuse popliteal aneurism during the first six days), and without the formation of a single drop of pus. In each case the last dressing was applied respectively on the fourteenth, tenth, eighth, eleventh, and twelfth day after the operation, and in each on the removal of that dressing the wound was discovered to be thoroughly sound. On similar principles, the radial artery was ligatured four times, the ulnar artery twice, and the popliteal artery once, with equally satisfactory results. In the last case, however, the anterior part of the foot lost its vitality, and ultimately required amputation. The vein, as well as the artery, was injured by the wounding instrument.

Mr. R. GODLEE said that in almost all these cases related by Dr. Cameron ligature of the artery was the only possible treatment. It seemed to him now that as treatment of aneurism by digital pressure, the tourniquet, Esmarch's bandages, flexion, etc., was usually very irksome and painful, it might possibly be well to treat all cases at the first by ligature with carbolised catgut, which, as now prepared,

kept its hold of the vessel a sufficient length of time to insure its occlusion.

The PRESIDENT said that Dr. Cameron's experience coincided with his own in so far as this, that the old-fashioned carbolised catgut fulfilled its purpose if properly prepared, and the treatment was thoroughly antiseptic, except in cases where a very long-continued pressure of the vessel by the catgut was necessary. But the catgut should be as strong as silk, as soft as the normal tissues; it should be capable of retaining a knot on it with perfect security, and should be free from porosity, so as not to hold organisms in it, as did silk. But however nearly perfect the ligature might be, there was no use in it unless perfect antiseptic treatment were also adopted, because otherwise the outer coat of the artery must die and suppuration ensue. He believed this was the reason why Dr. Cameron's treatment was so universally successful, he having strongly insisted on the antiseptic treatment in its entirety.

Dr. CAMERON, replying to Mr. Godlee, said that Esmarch's bandage had been first tried in the two cases of popliteal aneurism, but the agony was intolerable after some minutes, and in each the patient could endure no more. The ligature was then used with success. In two cases he had seen no benefit follow pressure, and his surgical colleague, going by his (Dr. Cameron's) experience, had then ligatured the femoral artery in Hunter's canal. When compression was tried, and the collateral circulation thereby established, one might find a second ligature even necessary, as in one of these two cases, in which the artery was tied in Hunter's canal when the ligature at the apex of Scarpa's triangle had failed. He believed that as the treatment by the ligature was so free from risk, it was better practice to adopt it at once than to try earlier treatment by these other methods, which were irksome, and interfered with the chances of successful treatment by ligature should it become necessary.

SPINA BIFIDA CURED BY INJECTION OF IODINE.

Mr. A. PEARCE GOULD read a case of spina bifida cured by injection of iodine. R. C. W., male, aged six months, was brought to Westminster Hospital on January 16, 1882. A tumour was situated over the lumbar vertebrae, about the size and shape of a large tomato; tumour translucent, fluctuating, sessile, covered with healthy skin; child otherwise well; no paralysis or deformity. The tumour became dense when the child cried; and pressure on it caused fulness of anterior fontanelle. Mr. Gould drew off about an ounce of the contained fluid, and injected a drachm of Morton's iodo-glycerine solution. As no effect was produced, the operation was repeated a week later, when half a drachm of the same solution was injected. After this the tumour became solid, and shrank. The child was shown at a previous meeting, when the tumour was seen as a thick fold of skin over the lumbar spines. The chief interest of the case lay in the fact that the fluid removed was analysed by Dr. Dupré, and found not to contain even a trace of sugar, showing that it was arachnoid, and not cerebro-spinal fluid; and Mr. Gould pointed out that this form of spina bifida is the most favourable for medical treatment. By experiments Mr. Gould found the iodo-glycerine solution did not readily mix with the fluid, but sank to the bottom when poured into it, thus confirming Dr. Morton's theory.

Mr. PARKER said he had operated successfully on a similar case five years ago; the child now had a tendency to hydrocephalus and talipes; nevertheless, successful cases were very few and far between. In another case that day the fluid drawn off had contained no sugar, and became nearly solid on being boiled. The injection had no immediate effect on the child. In a case in which the sac was cut across because of commencing inflammation around it from pressure, the child had recovered. This bold treatment, if accompanied by the adoption of all antiseptic precautions and subsequent pressure, might possibly avert the spread of inflammation to the spinal cord.

The PRESIDENT thought Mr. Godlee's case a favourable one for the operation, and the treatment by Morton's fluid seemed to be the best at present in vogue. He had at one time attempted the gradual treatment of spina bifida by slow drainage under antiseptic precautions; but his first case was disastrous in its result, due to the free flow of cerebro-spinal fluid. In the next case he arranged for a still slower drainage, but that child also sank. This treatment, he was convinced, should be abandoned; nor did he think

the laying open of the sac would be generally likely to succeed.

Mr. GOULD had tried the treatment by Morton's solution in two other cases. The first case he had altogether lost sight of. In the second case, complicated with hydrocephalus, the child sank, and on the day after the operation was profusely salivated by the absorption of the iodine. In another case, under his colleague Mr. Macnamara, the tumour of the spina bifida had been injected three times, and the child was now recovering.

The PRESIDENT believed that Dr. Morton now thought it advisable not to draw off the fluid from the spina bifida, but merely to inject the fluid, that being quite sufficient for the treatment of the case.

CONGENITAL INTESTINAL OBSTRUCTION.

Mr. A. PEARCE GOULD also related a case of congenital intestinal obstruction. A. B., a female, aged three days, was brought to Westminster Hospital on August 5, 1881, because, in spite of several doses of castor oil, it had not passed any meconium or motion. It had vomited several times. The child was thin, but showed no outward deformity. The anus was normal, and the last joint of the little finger could be passed into the rectum, which appeared to be closed over above it. No fulness or tumour to be felt in the pelvis, per rectum. A catheter and probe were each stopped about one inch from anus. Belly distended, its walls cedematous; a little ascites. At 1 a.m., August 6, Mr. Gould opened the belly above left Poupart's ligament. A coil of distended small intestine presented, and no coil of large intestine could be brought into the wound. So the former was carefully stitched to the edges of the incision and then opened, and a large quantity of meconium escaped. The child died twenty-one hours afterwards. At the autopsy no trace of peritonitis was found. The cæcum and lower four inches of ileum, and four inches of colon, were filled with a firm, whitish substance of the consistence of cheese, firmly applied to, but not united with, the mucous membrane. In the colon beyond this plug were found several masses of milk-white, firm mucus. Below this the colon and rectum were empty, and firmly contracted to the size of a clay tobacco-pipe stem. Above it the small intestine was distended with meconium and gas. It was pointed out that there was here no fault in development, but obstruction from a plug. From the white colour of this plug it was assumed that it was deposited by the third month of foetal life, as bile passes into the duodenum at that time. Three cases of congenital obstruction of the small intestine, briefly referred to by Mr. Holmes, were mentioned, and also the case of obstruction from a croupous membrane recorded in the *Clinical Society's Transactions* by Dr. Markham Skerritt. Mr. Gould also insisted on the advantage of opening the belly in the groin in all cases of congenital intestinal obstruction, in preference to lumbar colotomy, which would have been impossible in this case.

Dr. COUPLAND asked if the obstructing mass was formed of inspissated mucus. The case was almost unique. If the substance were inspissated mucus, it showed that in that case the glands of the large intestine must be acting some time before birth.

Mr. GOULD replied that the matter was undoubtedly inspissated mucus.

PRIMARY PERICHONDRITIS OF THE LARYNX.

Dr. DE HAVILLAND HALL related a case of primary perichondritis of the larynx. M. C., aged twenty-four, a dust collector, admitted into Westminster Hospital on September 6, 1881. With the exception of an attack of gonorrhœa, the patient could give no account of having had any illness till about Christmas, 1879, when he had a cough and rheumatic pains. He states that he has been hoarse since that time; the hoarseness came on quite suddenly. In the winter 1880-81 he had a cough, and this has continued more or less, so that he has been unable to work since Christmas of 1880. About May, 1881, he had a sore-throat (he points to the thyroid cartilage as the site of the pain) and difficulty in swallowing, but he had no difficulty in breathing till June. In August he expectorated some blood and matter, which relieved him somewhat. In the beginning of September he became much worse, suffering from great difficulty in breathing, paroxysmal cough, and hoarseness, and was admitted in this condition on September 6. Tracheotomy was performed on September 10. After the operation the

epiglottis was found to be intact, the glottis greatly contracted in all its diameters, the cords being much reduced in length, the right cord moving slightly on phonation, anteriorly and posteriorly, but the central part was in-curved, leaving a narrow elliptical opening, the thickened and hardly recognisable remains of the left cord being immovable in the median line. On deep inspiration the glottis would about admit a No. 12 catheter. There was a considerable amount of inflammatory swelling in the ary-epiglottic fold, especially on the left side. While in the hospital he was treated with iodide of potassium, and though the swelling diminished and the glottis increased in size, he was discharged on November 22, still wearing the canula, all attempts at leaving it off being followed by great dyspnoea. On December 31 he expectorated a piece of ossified cartilage, and two smaller pieces on January 3. This case was brought forward as an example of primary perichondritis of the larynx on account of the absence of all the usual exciting causes of this disease. On the most careful inquiry no history of syphilis could be obtained. The patient is a well-nourished man, and anything but cachectic in appearance. There is no suspicion of phthisis; there is no history of any blow on the larynx. He has not had typhus or typhoid fever. The conclusion was arrived at that the patient had had an attack of bronchitis (which is very probable, considering the nature of his occupation), that accompanying this he had laryngitis, and that the inflammatory mischief ultimately involved the perichondrium and caused necrosis of the cartilages. The patient is still under treatment for dilatation of the stenosed larynx.

Dr. SEMON said that the chief point of interest in the case was its etiology. In this country, the cases of secondary perichondritis were much rarer than abroad, especially at Vienna. In typhoid fever, ulceration of the aryteno-epiglottic fold was much less common here than abroad; and ulceration of the cartilages in syphilis was much more rarely seen here than in Vienna, for example. But the nervous diseases of the larynx were much more common here than in Vienna. He still thought Dr. Hall's case, which he had seen, was possibly one of syphilis of the larynx. As regarded the immovable fixation of the vocal cords, he was surprised at the rather common occurrence of this symptom. It might come without change in the voice or respiration; and yet, upon the use of the laryngoscope, one half of the larynx might be found immovable. He considered it to be always due to, and to indicate, deep organic disease of the larynx or of the nervous centres.

Dr. HALL said that Mr. Gould had also examined the patient, and had thought the case not due to syphilis; nor, because it might be alleviated by iodine, was it therefore of syphilitic origin.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.—The annual distribution of prizes awarded at the close of the winter session took place in the Theatre of this institution on Monday, April 30. Mr. George H. Porter, Surgeon to Her Majesty the Queen in Ireland, and Senior Surgeon to the Hospital, presided. The following is a list of the successful candidates:—First Medical Prize, John Mallins; Second Medical Prize, John Riordan; Senior Surgical Prizes, James T. Bolger and John Mallins (equal); Junior Surgical Prizes, Edwin G. Newell and William H. B. Robinson (equal). Certificates for six months' service as Clinical Clerks were presented by the Physicians of the Hospital (Drs. Foot and J. W. Moore) to Mr. George C. Porter and Mr. John Riordan. Resident Pupils' Certificates were presented by the Surgeons to Mr. John Mallins and Mr. R. Millar.

READING TO THE BLIND.—The Director of the Assistance Publique of Paris has organised readings aloud for the blind at the Salpêtrière and Bicêtre Hospices. The readings will be executed by volunteers twice a day. A very varied programme of subjects will every month be brought under the notice of those interested, so that all may choose among the subjects those which are most interesting to them. The readings have already begun at the Salpêtrière, and are most sedulously attended by the blind, who find in them a great relief to their state of isolation, as well as by many illiterate inmates who are not able to avail themselves of the library of the Hospice.—*Union Méd.*, May 6.

NEW INVENTIONS AND IMPROVEMENTS.

BLATCHLEY'S DIABETIC FOODS.

THE profession and the public are much indebted to Mr. E. Blatchley, of 167, Oxford-street, W., for his industry and ingenuity in providing different forms and kinds of diabetic food. His list now includes so many varieties of biscuits, rolls, breads, etc., that diabetic patients can be furnished with the changes in appearance and taste of food that are especially longed for by those who are cut off from all ordinary breads. Of the diabetic preparations now offered, the almond and gluten biscuits, gluten rolls, gluten, almond, and bran biscuits, and the gluten bread, are especially deserving of trial; they are all very palatable, and worthy of Mr. Blatchley's reputation.

CORRY'S RECARBONATED FLUID MAGNESIA. CORRY'S CONCENTRATED LEMON SYRUP.

THESE "elegant" and pure preparations furnish a mild, pleasant, and safe antacid aperient. Half a wine-glassful, or rather more, of the fluid magnesia in a tumbler of water forms, with a teaspoonful or two of the lemon syrup, an agreeable and refreshing draught and useful effervescing saline aperient. The quantities used may of course be varied according to the effect desired; and the preparations will certainly be found useful for women and children. Messrs. Newbery and Son, King Edward-street, E.C., are the London agents.

MALTO-PEPSYN.

WE have received from Messrs. Burgoyne, Burbidges, and Co., of 16, Coleman-street, E.C., a sample of this latest preparation for the cure or alleviation of difficult or feeble digestion. The remedial value of Malto-Pepsyn, which has been brought out by Mr. Hazen Morse, of Toronto, Canada, can, of course, only be proved by prolonged trial; but it is reported to have been largely employed in the land of its birth with excellent results, and it contains, together with other ingredients, our old and trusty friend, the *pepsina porci*. The formula of the preparation is, saccharated pepsine ten grains, saccharated pancreatine five grains, acid lactophosphate of lime five grains, and exsiccated extract of malt (equal to one teaspoonful of liquid extract) ten grains. Malto-Pepsyn ought therefore to possess considerable digestive value, and certainly presents good claim for an extensive trial. Messrs. Burgoyne, Burbidges, and Co. are the sole agents for Great Britain.

CUXSON'S ANTISEPTIC DRESSINGS.

WE have recently received samples of the antiseptic dressings prepared by Messrs. Cuxson and Co., Wednesbury, and can testify to their general excellence, as well as moderate price. Their carbolic gauze has been known to us for some time, and proved itself in every way reliable. Among the newer preparations may be mentioned their Eucalyptised Iodoform Wool and Lint, as deserving special attention. The eucalyptus, besides disguising the disagreeable odour of iodoform, adds to its antiseptic properties, and the combination thus becomes one of great utility. As dry dressings this iodoform lint and wool will be found most useful in keeping up the antiseptic condition of a wound in any region where the ordinary treatment is either difficult or from any cause undesirable. The wool is very soft and absorbable, and is uniformly impregnated with iodoform throughout. The London agents are Messrs. Maw, Son, and Thompson, Aldersgate-street, E.C.

GARDNER'S SYRUP OF HYDRIODIC ACID.

HYDRIODIC acid has been recently introduced into practice as a means of administering iodine in a non-irritant form. It contains a little more than 99 per cent. of iodine, but till lately the difficulty of obtaining it in a stable form interfered with its employment medicinally. Mr. W. Gardner, of New York, has, however, very happily overcome this difficulty in his soluble syrup of the acid, which is in every way an excellent preparation. It is of a light straw colour, is absolutely free from smell or taste of iodine, and is rather agree-

able than otherwise to the palate. One fluid ounce of the syrup contains forty minims of dilute hydriodic acid, which is equivalent to 6.66 grains of iodine, or 8.69 grains of iodide of potassium. It is reported to have been found very useful in asthma, bronchitis, and hay fever, as well as in conditions for which iodine is ordinarily employed. The dose is from two to three teaspoonfuls in water three times a day. Messrs. Allen and Hanburys, Plough-court, E.C., are the London agents for the preparation.

MEDICAL NEWS.

UNIVERSITY OF EDINBURGH.—The following is a list of candidates who have passed the First Professional Examination for degrees in Medicine and Surgery:—

A. M. Adams, A. Alexander, N. E. Aldridge, J. A. Ashcroft, James Anderson, John S. Archibald, Samuel Arnold, H. T. Barton, John B. Bawden, Robert N. Bell, David Berry, Robert Beveridge, Richard Bland, Walter C. Bluck, Frederick M. Blumer, Louis Z. H. Bouchet, W. F. Boycott, Alexander Brewster, Edward Bryden, C. G. Cassidy, Edward Chamberlayne, James A. Clark, James F. Cownie, Arthur L. Curtis, James H. Dawe, Herbert J. Dring, George G. Eyre, Alexander S. Ferguson, Thomas L. Ferrier, Arthur M. Fraser, David Fraser, Thomas Fraser, Robert Fullerton, Thomas A. Fulton, J. W. Gainer, J. E. Gemmell, Walter M. Gossip, Walter D. Grieve, Felix O. Guerin, William P. Harries, James Hindle, Herbert Hirst, William A. Holmes, Robert S. Hubbersty, Hugh C. Hughes, Job Hughes, James Hunter, James Hutcheson, Theophilus B. Hyslop, George A. John, Aubrey Johnston, George F. Johnston (with distinction), James P. Johnston, John Jones, Arwid L. Kellgren, James Kerr, William Laing, Charles N. Lee, Edwin L. Lees, James A. Leishman, Louis H. Le Merle, William Little, Gerhardus S. Loubser, Reginald Lucy, William M'Culloch, Alexander G. Macdonald, Henry C. M'Ewan, William C. M'Ewan, John M'Gibbon, Alistair Macgregor, Ian D. Mackay, William B. Mackay, John C. Mackenzie, Wm. R. M'Kinnell, Murray MacLaren, Alexander R. Macmillan, Thomas Monies, Upendra N. Mukerji, Neil G. Munro, Albertus Mybrough, Walter B. Nisbet, John W. Pare, Alexander Paterson, Emmanuel Portal, James H. Pringle, John C. Robertson, A. H. Robinson, William L. Ross, George T. Sinclair, Horace Smith, William Spettigue, William H. G. Stephen, Benjamin D. Stewart, John R. Talbot, Mowbray Taylor, John T. Thompson, James B. Tierney, George J. E. Trotter, George A. Tullis, Edward Walker (with distinction), Thomas A. Watson, Frederick E. Welby, Stephen F. Wernich, Alfred B. Whittin, Arthur Wood.

The following is a list of candidates who have passed the Second Professional Examination for degrees in Medicine and Surgery:—

George F. Alexander (with distinction), John Anderson, T. L. Bancroft, Theodore H. Barker (with distinction), W. H. Barrett, H. J. Barron, Minas M. Basil (with distinction), Basanta K. Basu, James A. Blair, John H. Brown, John N. Burns, George S. Cardew, James M. Caw, Edwin A. Chill, Ronald Clark, J. A. Clayton, Horace Cocks (with distinction), Francis G. Connor, William Cotton (with distinction), James Craig, Wm. Cumming (with distinction), James Dalgleish, Thomas K. Dalziel, Archibald Donald, Alexander P. Drummond, William Duff (with distinction), H. A. Dumat, Thomas E. Dyson (with distinction), Thomas J. Fletcher, Alexander Forbes, Arthur Fuller, M. H. Gardiner, J. E. Godfrey, R. Gordon, James Graham, L. R. Gray, T. D. Greenlees, H. M. Hardcastle, R. D. Helm, James Heath, John Henderson, Robert S. F. Henderson, George Hewlett (with distinction), John Hutson, Robert Inch, R. W. Jamie, Charles H. Jones, David K. Keith, James Kerr (with distinction), Ernest Kingscote, J. A. Loudon, D. R. M'Arthur, B. F. P. Macdonald, John Macdonald, Wm. F. Macdonald, George Mackay, Robert Mackenzie, Frank I. Mackinnon, John M'Lachlan (with distinction), Chas. M'Leod, William M. M'Pherson, Augustus A. Matheson, Farquhar W. Matheson, T. C. Meggison, A. W. T. F. Mickle, W. H. Miller, Robert P. Mitchell, Upendra N. Mukerji, J. A. J. Murray, J. A. Myrtle, Gustave P. Nicolet, Gerrit Nieuwoudt (with distinction), Owen R. P. Owen, Alexander G. Paterson, Donald Paterson (with distinction), Walter Petter, William L. Price, Joseph Priestley, G. M. Reid, James B. Roberts, T. M. Robertson (with distinction), Arthur Robinson (with distinction), J. R. Stevenson, James Stewart, Arthur J. Stiles, H. A. Tuxford, Richard Vassie, John Walther, Allan O. Ward, Edward H. Warner, G. de B. Watson, W. H. Weston, R. A. Williams, H. A. Wilson, H. G. Wilson, Theodore S. Wilson, Arthur C. Younan (with distinction).

UNIVERSITY OF ABERDEEN.—At the late Medical Graduation Term, the following candidates, after the usual examinations, received degrees in Medicine and Surgery:—

THE DEGREE OF M.D.

George Ackroyd, M.B., C.M., Streatham; Arthur George Blomfield, M.B., Devon and Exeter Hospital; Alexander Boswell, M.B., Ashbourne, Derbyshire; Peter Burgess, M.B., C.M., Ballindalloch; Colin M'Ever Campbell, M.B., C.M., Durham County Asylum; Rashell Thos. Davison, M.B., Battle, Sussex; John Davy, M.B., C.M., Halifax; Frederic Hawes Elliott, M.B., C.M., Andover, Hants; John George Hall, M.B., C.M., Aberdeen; John Harris, M.B., C.M., Newcastle, New South Wales; Coll Reginald Macdonald, M.B., C.M., Beith, Ayrshire; William Macdonald, M.B., C.M., Inverness; Satish Chandra Mukhopadhyay, M.B., C.M., Calcutta; Arthur Purkiss, M.B., C.M., West Brixton, London; John Thomson, M.B., C.M., Kendal; William Edward Webb, M.B., C.M., Burnley, Lancashire.

THE DEGREES OF M.B. AND C.M.

John Barrett, P. and O. Service; James Bremner, Grange, Keith; John William Collie, Aberdeen; Robert John Collie, Aberdeen; Alexander Cran, Cabrach, Banffshire; Arthur William Eddie, Aberdeen; Thomas Wardrop Griffith, Aberdeen; David Henderson, Watten; J. Willoughby

Hodgson, Brighton; William Reid Holmes, Aberdeen; John Jenkyns, Aberdeen; George David Knight, Skene, Aberdeenshire; James Alex. Macdonell, Dufftown; Alfred Alexander Mackie, Aberdeen; Charles Mayne Maxwell, Hobart, Tasmania; Alexander M'Lean, M.A., Coull, Aberdeenshire; James Middleton, Auchindoir; James Robert Nicoll, M.A., Rhynie; Henry Astley Phillips, London; John Moysey Rattray, M.A., Aberdeen; John Reid, M.A., Portsoy; Charles Samuel Alfred Rigby, Preston; William Pyle Ross, M.A., Aberdeen; Carrapiet John Sarkies, Calcutta; William Sinclair, Nigg; John Taylor, Stonehaven; Thomas Pickthorn Thomson, Gartly; John Walker, St. Vincent, West Indies; Richard Rose Weir, Elgin; James Wilson, M.A., Rhynie; John Henry Wilson, Warwick; Martensz James Wright, Colombo.

Of the above-named candidates, Thomas Wardrop Griffith and George David Knight received their degrees in Medicine and Surgery with highest academical honours; and James Bremner, Alexander Cran, John Taylor, and James Wilson, M.A., received their degrees in Medicine and Surgery with honourable distinction. The John Murray Medal and Scholarship was awarded to Thomas Wardrop Griffith, as the most distinguished graduate of his year. At the same time, Henry Herbert Brown, Francis Joseph Hudson, John Tasman Waddell Leslie, David Reid M'Kinnon, and Arthur Rannie were certified as having passed all the examinations, but did not graduate; and the following candidates are now declared to have passed the first division of the First Professional Examination:—

Frank Hay Cantlie, James Forsyth Craig, George Burnett Currie, David Alexander Forbes Kydd, Henry George Laskey, Robert Horsburgh Mackay, James Chisholm Mackintosh, John Maclean, Alex. Sutherland Manson, James Murray, William Gordon Stott, and Andrew Whyte.

The following candidates to have completed the First Professional Examination:—

Henry M'Kenzie Adamson, Joseph Anderson, Christopher George Battiscombe, Robert Milne Beaton, Charles Gordon Bennett, Francis Alexander Bennet, Andrew Hunter Cowan, Alexander Mitchell Cowie, William Christie Crowe, Henry Moger Cyril Dalton, George Duffus, Alex. Gray Duguid, Walter Angus Elmslie, Henry Gibbons, John Gordon, Alexander Gregory, James Duncan Hendry, John Watson Hutcheon, Arthur Stephen Inglis, Louis Joseph, Stuart Macdonald, Frank Innes Mackintosh, Alexander Lawson Mather, George Milne, James Mitchell, Arthur Andrew Morrison, Alexander Murchison, David Prain, Robert Dowell Presslie, Alexander Reid, Alexander Rennie, James Alexander Ross, James Savege, William Booth Skinner, John Hutton Stenhouse, Herman Thiele, Leslie Fyfe Walker, John Eustace Webb, and Arthur Meredith Whitehead.

The following candidates to have passed the Second Professional Examination:—

John Hector Anderson, Walter Herschel Atherstone, Albert H. Barrett, George Buchan, Charles A. Butchart, Arthur G. Cunningham, George F. A. Da Costa, James M'K. Davidson, Charles A. Faulkner, John Gerard, John Gordon, Andrew Grant, John W. Harrison, Andrew Hosie, David Ireland, Charles Jeffrey, George Johnston, Thomas M. Johnstone, John B. Kerr, John M'Combie, James F. Macdonald, Cyril James Mansfield, John Matheson, Grenville E. Moffet, John D. Moir, Arthur A. Morrison, David Petty, David Prain, John Moysey Rattray, James R. Reid, Richard Rees, James T. Robb, William L. Ruxton, William Scott, Alexander G. Smith, Arthur G. Smith, James L. Smith, William Allan Stewart, George C. Still, John Turner, George Vincent, John Walker, John Kennedy Will.

The next Professional Examination for Degrees in Medicine commences on Saturday, July 22.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their First Professional Examination during the recent sittings of the examiners:—

Charles Edwin Solomon, Cornwall; Robert Martin Fleming, Suffolk; Joseph Dunlop, Conagher; Douglas Lawson Thomson, Hampshire; Charles Stormont Murray, London; William Morrison Storror, Aberdeenshire; John Henry McAuley, Dublin; Michael Hawe, Cork; Robert Spring, Cork; Edward Morse, Crewkerne; Robert Balfour Graham, Berwickshire; Frank Laird, Aberdeenshire; Herbert Dumville Harthan, Sandbach; William Ferriday, Manchester; Cyril Somerset Earle, Manchester; Charles Theodore Uoo Babot, Newcastle; Percy Howard Day, York; Robert McCall, Edinburgh; Thomas George Williamson, Leith; Stuart Herriot, Alderley; Joseph Fitzgerald, co. Limerick; Ernest Frederic Taylor, Riponden; Neil Stewart, Caithness; Benjamin Marshall, co. Tyrone; William Arthur Dickson, Dublin; Michael Donville Hart, Jamaica; Charles William Dean, Lancaster; James Henry Curtis, Cork; Arthur Neville, Cheltenham; James Mungle, West Calder; Clement Rowsell, Kennington; John Edmund Hutchings Stephens, Cornwall; John George Brown, co. Cork; Wellington Dournan, Cork; Major Henry Court Irving, Allahabad; William Pope Baldwin Goodridge, Stourpaine; James Malcolmson, co. Down; James Alistair, co. Down; Sewell Samuel McFarlane, Australia.

The following gentlemen passed their Final Examination, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

Joseph Samuel Dunlop, Liverpool; James Pierce Johnstone, Demerara; Robert William Jephcott, Warwickshire; Cyril John Williams, Yorkshire; Symers Douglas Macvicar, Moffat; Henry Bolingbroke Seymour Carlil, Norfolk Island, Australia; Alexander Meighan, Glasgow; Albert Primrose Wells, Chelmsford; Hartley Dixon, Cheshire; James Thomas Carter, Manchester; William Montagu Venable Williams, Denbighshire; James William Jeram, Southsea; Francis Edwin Mulliner, Northampton; Campbell Tulloch Dewar, Jamaica; William Johnson, co. Durham; William Turner, Ratho; James Gunning, Castlereagh; Matthew Ryder Draper, Cheltenham; James Alexander Mather, Fifeshire; Francis

Bernard Norris, Cork; Charles Cumberland Brodrick, Jersey; Wesley Franklin McLean, Canada; Charles Samuel Brewer, Liverpool; Charles Sheard Leach, Rangoon; Calet St. John Lawrence, Madras; Charles Henry Eyles, Madras; Robert Walter Mackinstry, co. Monaghan; George Toussaint Girdler, Penge; Thomas Moore Dawson, Liverpool; Moffat Young, Londonderry; James Hayreave Mawson, Humbleton; Samuel McCutchan Cowe, Whitehaven; Richard Crofts, Cork; Searle Monteith Haward, London; Charles Henry Freeman Underwood, Poona, Bombay; James Fairbairn, Australia; Edward Knight, London; John Wood Lewis, Skibbereen; Frank Squire Boreham, Lynn Regis; Joseph Charles Blyth, Montgomeryshire; William Gunn, Sutherlandshire; George William Daunt, co. Cork; Hugh Owen Hughes, Denbigh; Charles Maxwell, Lockerbie; Samuel William Brierley, Victoria, Australia; Harry Albert Murphy, Bolton; Henry James Edwards, Bowness, Windermere; Henry Jelfe Thomson, Margate, Kent; Robert Dickie, Bradford, Carnbeg.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 4th inst., and when eligible will be admitted to the Pass Examination, viz.:—

Ackland, Charles K., student of King's College Hospital.
Arkle, Charles J., of University College Hospital.
Bramwell, Hugh R., of the Edinburgh School.
Castor, Richard H., of King's College Hospital.
Clarkson, Frank C., of St. Thomas's Hospital.
Coleman, William E., of University College Hospital.
Collins, George F., of St. Bartholomew's Hospital.
Cree, Gerald, of the Middlesex Hospital.
Dodd, Walter H., of Guy's Hospital.
Fenoulhet, James P., of St. Bartholomew's Hospital.
Fletcher, Thomas J., of the Edinburgh School.
Girvin, John, of St. Bartholomew's Hospital.
Godfrey, Frank W. A., of the Edinburgh School.
Laurie, Casper R., of St. Bartholomew's Hospital.
Lightfoot, Charles L., of the Edinburgh School.
Newey, William E., of the Middlesex Hospital.
Paterson, Alexander G., of the Edinburgh School.
Priestley, Joseph, of the Edinburgh School.
Prout, William T., of the Edinburgh School.
Staples, James D., of the Westminster Hospital.
Veelcker, Arthur F., of University College Hospital.
Warner, Edward H., of the Edinburgh School.
Washbourn, William, of University College Hospital.
Wilson, Theodore S., of the Edinburgh School.

Four candidates having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, making a total of fifty-three rejections out of the 220 candidates examined, including six who had an additional three months. The following gentlemen passed on the 6th and 8th inst., viz.:—

Adams, Charles E., student of St. Bartholomew's Hospital.
Armstrong, Sidney J., of the Charing-cross Hospital.
Banatvala, Hormasjee E., of the Bombay School.
Basset, Walter, of the Bristol School.
Braddon, William L., of Guy's Hospital.
Clifford, Thomas, of the Newcastle School.
Darlington, Alfred N., of the Birmingham School.
Duffelt, Edwin D., of the Bristol School.
Foster, Walter E., of St. Bartholomew's Hospital.
Greene, Charles, of the Birmingham School.
Gutteridge, Matthew W., of the Edinburgh School.
Hailey, Melville McP., of Guy's Hospital.
Hulke, Frederick B., of University College Hospital.
John, Thomas, of Guy's Hospital.
Laws, Cuthbert U., of the Newcastle School.
Leeming, Robert W., B.A. Cantab., of the Edinburgh School.
Lewis, Edward J., B.A. Cantab., of the Cambridge School.
Lewis, Jenkyn, of the London Hospital.
McShane, George, of University College Hospital.
Moberly, Sydney C. H., of St. Bartholomew's Hospital.
Mourilyan, Edward P., of Guy's Hospital.
Parry, John W., of the Glasgow School.
Partrick, Joseph H., of the Birmingham School.
Partridge, Sidney, of the Edinburgh School.
Priestley, Percy, of the Sheffield School.
Reed, John S., of University College Hospital.
Richardson, William G., of the Newcastle School.
Thompson, Wilberforce, of the Leeds School.
Ward, Richard M., of Guy's Hospital.
Watkins, Arthur M., of the Liverpool School.
Wells, George L., of St. Bartholomew's Hospital.
Winter, Frank, of the Newcastle School.

Sixteen candidates were rejected, including three who had an additional three months. The following gentlemen passed on the 9th inst., viz.:—

Averill, Charles, student of St. Bartholomew's Hospital.
Buss, Howard D., of University College Hospital.
Carver, Arthur R., of Guy's Hospital.
Drage, Lovell, of St. Bartholomew's Hospital.
Edwards, William R., of the London Hospital.
France, James M., of University College Hospital.
Gillett, John A., of the London Hospital.
Hall, William G., of the London Hospital.
Hebblethwaite, Septimus M., of St. Bartholomew's Hospital.
Lee, William J., of Guy's Hospital.
Pring, Frederick A., of St. Bartholomew's Hospital.
Stevenson, George, of St. Bartholomew's Hospital.
Sturdee, Alfred H., of King's College Hospital.
Symes, George D., of St. George's Hospital.

Thomas, Edwin C., student of the London Hospital.
Welstead, Frederick W., of Guy's Hospital.
White, Thomas D., of the Middlesex Hospital.
Wingrave, Thomas, of the London Hospital.
Woods, Ninian W., of St. Bartholomew's Hospital.
Wunderlich, Otto, of St. Bartholomew's Hospital.

Eight candidates were rejected. The following gentlemen passed on the 11th inst., viz.:—

Blacker, Arthur B., student of St. Thomas's Hospital.
Cattell, George T., of Guy's Hospital.
Cattle, Bernard, of St. Bartholomew's Hospital.
Cordiner, Richard, of the London Hospital.
Crisp, James E., of the London Hospital.
Davison, Herbert, of University College Hospital.
Holland, Edmund B., of University College Hospital.
Kirby, Alfred, of the Middlesex Hospital.
Rhys, Watkin L., of Guy's Hospital.
Roberts, George A. E., of the Middlesex Hospital.
Spry, William, of St. Bartholomew's Hospital.
Sugden, Edward S., of St. Thomas's Hospital.
Swindlehurst, Thomas N., of Guy's Hospital.
Walker, James H., of University College Hospital.
White, Francis S., of University College Hospital.

Thirteen candidates were rejected, including two who had an additional three months, and one of them detected copying. [The name of Thomas Kenedy Dalziel, of the Edinburgh School, who passed on the 26th ult., was accidentally omitted in the list then published.]

Primary Examinations.—The following were the questions in Anatomy and in Physiology submitted to the 167 candidates for the diploma of Membership of the Royal College of Surgeons on the 5th instant, when they were required to answer four out of the six questions in each subject, viz.:—
—Anatomy (1 to 3 p.m.): 1. Describe the surfaces of bone which enter into the formation of the floor of the orbit. 2. The uterus: describe its position and its ligaments; also the divisions of the organ, its cavity, and the openings into it. 3. Describe the second portion of the subclavian artery, and the dissection by which you would expose it. 4. Describe the synovial membrane of the knee-joint, and mention the various synovial bursae which are found in the neighbourhood of this articulation. 5. State the position which the heart and the arch of the aorta bear in reference to the walls of the thorax and to the roots of the lungs. 6. Name in order the parts which would be divided in removing the hand at the wrist-joint by a transverse incision from before backwards. The following were the questions in Physiology (from 4 to 6 p.m.):—1. Describe the structure and functions of the sub-maxillary and parotid salivary glands. 2. How does striated muscle in a state of rigor mortis differ from similar muscle when living and in a state of rest? What conditions affect the period of onset and the duration of rigor mortis? 3. The production of heat in the body has been compared to the process of combustion. State in what particulars the comparison is valid. By what circumstances is the production of heat in the body modified? 4. What are the extrinsic and intrinsic muscles of the eyeball? What are their functions? and what nerves supply them? 5. Describe the coagulation of the blood, and state the mode in which the fibrin factors can be obtained. 6. Describe the structure of the testis.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their First Professional Examination during the recent sittings of the examiners:—

Archibald James Alexander Campbell, Perthshire; Ernest John Jerome, Sunderland; Edmund John Nuttall, Rochdale.

The following gentlemen passed their Final Examination, and were admitted Licentiates of the College:—

James Walshe-Davidson, County Antrim; John Griffiths, Carnarvonshire; Harold Allan Vild Batten, Uxbridge; Arthur Storrs, Nova Scotia; Harry Pennington Hallows, Liverpool; Ernest John Jerome, Sunderland.

The following gentleman passed his First Professional Examination for the Licence in Dental Surgery:—

George John Lucas, Blackheath.

The following gentleman passed his Final Examination, and was admitted L.D.S.:—

James Lindsay, Edinburgh.

UNIVERSITY OF DUBLIN—TRINITY TERM, 1882.—At the "Comitia Aestiva Priora" held on Wednesday, May 3, in the Examination Hall of Trinity College, the Senate of the University conferred the following, amongst other degrees:—*Doctor in Medicinâ*: Carolus Patricius Baxter.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners, held on April 21 and following days, the undernamed gentlemen, having passed the required examinations for the Letters Testimonial, and having taken the declaration and signed the roll, were admitted Licentiates of the College:—

Morris Asher, William V. Barre, Edmond M'William Burke, Hugh John Byrne, Thos. Spread Campion, Sydenham Davis Chandless, Roderick Cusack, William Thomas Cuthbert, Frederick William Elsner, Francis C. Evans, John Aloysius O'Finegan, Vicars Henry Fisher, George Henry Johnson Fisher, Richard Whatley Gilmore, John Baptist Greene, John Griffin, Robert Joseph Guhhins, David Hamilton, John Mary Harrington, Alex. Fleming Harper, Pierce C. Hayes, Robert John Heatly, Robert Hickson, Allen M. Irwin, William George Kennedy, James Joseph Kerr, John Robert Malins, John M'Cahe, Michael M'Hugh, Thomas M'Inerney, Fitzjames Molony, William F. Morgan, Frederick Hone Moore, Robert G. Neshitt, John R. Nolan, William Nolan, Claudius O'Donel, Peter O'Donnell, James Joseph Phelan, William Henry K. Pollock, George Cardwell Porter, William James Robinson, Joseph Fitzmaurice Russell, Robert Simpson, William Francis Smartt, Nohle Luke Usher Somers, William H. S. Walker, Samuel Richard Wills, George Tandy Wilkinson, Michael Thomas Yarr.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 4:—

Browne, William, Beith, Ayrshire.
Dawson, William Edward, London Hospital.
Priestley, John, Greenhays, Manchester.
Williams, John Worthy, 58, Acre-lane, Brixton.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Hadley, Wilfred James, London Hospital.
Howse, Percy Wm. McW., London Hospital.
Scanlan, Arthur de Courcy, Westminster Hospital.
Stephens, Samuel, St. Bartholomew's Hospital.

APPOINTMENTS.

* * The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

DAVIES, JOHN T.—House-Surgeon to the Royal Infirmary, Glasgow.
ENGELS, A. J.—House-Surgeon to the Royal Infirmary, Glasgow.
GIBB, WILLIAM—House-Physician to the Royal Infirmary, Glasgow.
JACOB, ARCHIBALD H., B.A., M.D., F.R.C.S.I.—Professor of Ophthalmic and Aural Surgery in the Royal College of Surgeons in Ireland, *vice* Dr. Swanzy, resigned.
KEAY, JOHN, M.B., C.M.—House-Surgeon to the Royal Infirmary, Glasgow.
OAKES, HENRY—House-Surgeon to the Royal Infirmary, Glasgow.
RENTOUL, ROBERT—House-Physician to the Royal Infirmary, Glasgow.
SINCLAIR, HUGH—House-Surgeon to the Royal Infirmary, Glasgow.
WHITE, H. W., L.R.C.P. Ed., L.F.P.S.G.—House-Physician to the Royal Infirmary, Glasgow.
WHITE, J. W.—House-Physician to the Royal Infirmary, Glasgow.
YOUNG, CHARLES S.—House-Physician to the Royal Infirmary, Glasgow.

BIRTHS.

CAMPBELL.—On May 7, the wife of William Campbell, L.R.C.S., at 40, Wellington-square, Hastings, of a daughter.
CHAMBERS.—On May 5, at 9, Wilmington-square, W.C., the wife of E. Chambers, M.B., etc., of a daughter.
DARLEY-HARTLEY.—On March 21, at East London, Cape Colony, the wife of W. Darley-Hartley, M.R.C.S., L.R.C.P., of a son.
GRIMBLY.—On May 8, at Newton Abbot, South Devon, the wife of R. Henry Grimbly, M.R.C.S., of a daughter.
MATTHEWS.—On May 9, the wife of John Matthews, M.D., of 30, Colebrooke-row, Islington, N., of a daughter.
NIVEN.—On May 5, at St. Margaret's, South Norwood-hill, S.E., the wife of W. Niven, M.D., of a son.
PHELPS.—On May 6, at Ashford, Kent, the wife of Philip Phelps, M.R.C.S., of a daughter.
SANSOM.—On May 4, at 30, Devonshire-street, Portland-place, W., the wife of A. Ernest Sansom, M.D., F.R.C.P., of a son.
SLOGGETT.—On May 4, at Fatehgarh, N.W.P., India, the wife of Arthur T. Sloggett, Surgeon A.M.D., of a son.
STOCKS.—On May 4, at Courland, 421, Wandsworth-road, S.W., the wife of Frederick Stocks, F.R.C.S., of a son.

MARRIAGES.

TAYLOR—SEDDON.—On March 14, at Sandgate, near Brisbane, Australia, Frank Taylor, Esq., of Emerald, near Rockhampton, son of Charles Taylor, M.D., of Pine House, Camberwell, to Emily, daughter of the Rev. David Seddon, formerly of Melbourne.
WHITE—ROUND.—On May 4, at Torquay, Richard Watts White, M.R.C.S., L.R.C.P., to Florence Ella, daughter of Thomas Round, Esq., of the Dingle, Torquay.

DEATH.

PUGSLEY, LUTLEY, M.R.C.S., L.S.A., at Whitefield, Wiveliscombe, on May 5, aged 65

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRISTOL FORESTERS' DISPENSARY.—Medical Practitioner. Candidates must be duly qualified, and will be required to assist the Senior Surgeon in visiting and prescribing. Testimonials, with applications, to be sent to the Secretary, E. S. Burgess, 34, Horfield-road, Kingsdown, Bristol, on or before May 29.

CHARING-CROSS HOSPITAL, WEST STRAND, W.C.—Assistant-Surgeon. (*For particulars see Advertisement.*)

CITY OF LONDON LUNATIC ASYLUM, STONE, NEAR DARTFORD, KENT.—Assistant Medical Officer. (*For particulars see Advertisement.*)

DURHAM COUNTY ASYLUM.—Junior Assistant Medical Officer and Pathologist. Candidates must be duly qualified, registered, and unmarried. Applications to be made to Dr. R. Smith, Durham County Asylum, Sedgfield, near Ferryhill.

GLENLIVET AND KIRKMICHAEL PARISHES.—Medical Officer. Applications, with testimonials, to be sent to Mr. James Hay, Inspector of Poor, Inveraven, Ballindalloch, by May 15.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET, LONDON, W.C.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

LEITH HOSPITAL.—Assistant-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to be sent to the Secretary, George V. Mann, 33, Bernard-street, Leith (from whom all information can be obtained), by June 8.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

ST. PANCRAAS AND NORTHERN DISPENSARY.—Physician-Accoucheur. (*For particulars see Advertisement.*)

WILTS COUNTY ASYLUM, DEVIZES.—Assistant Medical Officer. Candidates must be duly qualified registered medical practitioners and unmarried. Applications, stating age, accompanied by not more than six recent testimonials, to be sent to the Medical Superintendent at the Asylum, on or before May 17.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Huddersfield Union.—Dr. Douglas has resigned the Fulstone District area 7697; population 6021; salary £20 per annum.

Thirsk Union.—Mr. J. F. Witz has resigned the Kilburn District: area 2662; population 425; salary £8 per annum.

Tiverton Union.—Mr. F. L. Stephenson has resigned the Bradninch District: area 4830; population 2060; salary £35 per annum.

APPOINTMENTS.

Barton-upon-Irwell Union.—Edward Casey, B.M. and M.C. Aber., to the Irlam and Cadishead District.

Haltwhistle Union.—Stewart Carson, jun., B.M., M.C. Edin., to the Southern District.

Hemel Hempstead Union.—Frederick C. Fisher, M.R.C.S., L.S.A., to the King's Langley District.

Totnes Union.—Henry Ubsdell, M.R.C.S. Eng., L.S.A., to the Rattery and Staverton Districts.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting, held on Monday, May 8 (William Spottiswoode, Esq., M.A., D.C.L., Pres. R.S., Manager, in the chair), the following were elected Members of the Royal Institution:—Robert Cordy Baxter, Geo. Christian, Charles Combe, Carl Haag, John J. Edwin Mayall, F.C.S., Alfred Meadows, M.D., Mrs. Charles W. Mitchell, Colonel Francis Richard Waldo Sibthorp, Alexander Siemens, M.Inst.C.E., Mrs. Alexander Siemens, and Arthur John Wright. John Tyndall, D.C.L., LL.D., F.R.S., was re-elected Professor of Natural Philosophy. Two candidates for membership were proposed for election.

RUSSIAN MEDICAL WOMEN.—With some rare exceptions these are recruited from among the poorer classes. Of 965 women who have been admitted to the classes during the last ten years, 434 are still continuing their studies, and 281 have finished them. Of this latter number, 183 have passed their final examinations with success, 60 are undergoing these, 33 are preparing for them, and 5 only have declined to appear before the examiners.—*Gaz. Hebdomadaire*, May 5.

SOUNDING THE FEMALE URETERS.—Dr. Pawlick, Privat-Docens of Vienna, formerly an assistant of Prof. C. von Braun, read a paper recently in Salzburg upon this subject. He finds that when a woman is placed in the knee-elbow position, and the posterior vaginal wall is drawn upwards and compressing the rectum, by means of a Sims' speculum the trigonum vesicæ and the entrance-places of the ureters are plainly visible. It is then not difficult, with a specially designed catheter, to sound the ureters. He demonstrated his proposition upon two women whom he brought with him; and was able, in both cases, in a short time to sound the ureters with perfect safety.—*Phil. Med. News*, April 8.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 6, 1882.

BIRTHS.

Births of Boys, 1406; Girls, 1334; Total, 2740.
Corrected weekly average in the 10 years 1872-81, 2749'0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	768	727	1495
Weekly average of the ten years 1872-81, } corrected to increased population ...	823'1	760'5	1583'6
Deaths of people aged 80 and upwards ...	...	...	46

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric(or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West	669633	2	17	4	2	13	...	...	1	4
North	905947	2	3	6	1	22	2	5	...	1
Central	232238	...	6	2	5	14	...	...	...	1
East	692738	...	2	3	3	25	...	2	...	5
South	1265927	9	26	10	3	51	...	3	1	7
Total	3816483	13	54	25	14	125	2	10	2	18

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	...	29'645 in.
Mean temperature ... ..	...	...	...	...	...	...	52'0°
Highest point of thermometer ... ..	...	...	...	...	...	...	70'4°
Lowest point of thermometer ... ..	...	...	...	...	...	...	37'0°
Mean dew-point temperature ... ..	...	...	...	...	...	...	46'3°
General direction of wind ... ..	...	...	...	...	...	...	S.W.
Whole amount of rain in the week ... ..	...	...	...	...	...	...	0'95 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 6, in the following large Towns :—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending May 6.	Deaths Registered during the week ending May 6.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London	3893272	2740	1495	20'0	70'4	37'0	52'0	11'11	0'95	2'41
Brighton	109595	81	57	27'1	66'0	38'6	51'8	11'01	0'59	1'50
Portsmouth	129918	85	71	28'5	...	...	...	...	...	...
Norwich	88821	70	39	22'9	...	...	...	...	...	...
Plymouth	74449	51	25	17'5	62'3	37'8	49'5	9'72	0'49	1'24
Bristol	210134	148	95	23'6	65'5	38'2	48'3	9'06	1'11	2'82
Wolverhampton	76756	65	30	20'4	61'3	33'1	46'0	7'78	0'91	2'31
Birmingham	408532	292	140	17'9	...	...	...	...	...	...
Leicester	126275	116	54	22'3	62'0	36'0	49'1	9'50	0'82	2'08
Nottingham	193573	149	101	27'2	65'6	35'1	48'5	9'17	1'63	4'14
Derby	83587	63	30	18'7	...	...	...	...	...	...
Birkenhead	86592	65	22	13'3	...	...	...	...	...	...
Liverpool	560377	466	277	25'8	58'4	37'5	47'1	8'39	0'41	1'04
Bolton	106767	78	50	24'4	58'5	33'7	45'0	7'22	1'13	2'87
Manchester	340211	266	181	27'8	...	...	...	...	...	...
Salford	184004	146	73	20'7	...	...	...	...	...	...
Oldham	115572	90	46	20'8	...	...	...	...	...	...
Blackburn	106460	68	56	28'4	...	...	...	...	...	...
Preston	97656	82	55	23'4	...	...	...	...	...	...
Huddersfield	83418	44	28	17'5	...	...	...	...	...	...
Halifax	74713	42	24	16'8	...	...	...	...	...	...
Bradford	200158	110	93	25'5	62'0	35'0	46'9	8'28	0'65	1'65
Leeds	315998	253	154	25'4	62'0	37'0	43'6	9'23	1'55	3'94
Sheffield	290516	214	117	21'0	63'0	36'0	48'2	9'00	0'61	1'55
Hull	158814	120	64	21'0	60'0	37'0	47'7	8'72	0'56	1'42
Sunderland	119065	97	66	28'9	67'0	33'0	49'1	9'50	1'11	2'82
Newcastle	147626	97	69	24'4	...	...	...	...	...	...
Cardiff	83724	70	32	19'3	...	...	...	...	...	...
For 28 towns	8469571	6168	3551	21'9	70'4	33'0	48'4	9'11	0'89	2'26
Edinburgh	232440	191	96	21'0	58'0	35'4	46'8	8'23	0'63	1'60
Glasgow	514048	414	256	28'0	58'8	35'0	47'3	8'50	0'60	1'27
Dublin	348293	209	184	27'6	59'9	32'8	47'0	8'33	0'63	1'73

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29'65 in. The lowest reading was 29'29 in. at the beginning of the week, and the highest 29'78 in. on Tuesday evening.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

"POOR JACK."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your Notes, Queries, and Replies, of May 6, you inform an "Old Yachtsman" that sobriety is increasing among the sailors of the merchant service, and that the Missions to Seamen are vigorously attacking the evil of drink in nearly all the seaports in the country. May I venture to suggest that the abolition of all spirit-drinking on board ship will involve the increased consumption of tobacco, so long as the food provided for merchant seamen remains without proper supervision. The quantity is well enough, and the sailor can insist upon proper weight, but the quality depends upon the owner. I have made too many voyages not to be aware that the sailors in transport ships gladly eat food which soldiers refuse to touch; and I have every reason to believe that now, in ships not carrying passengers, the meat served out is sometimes so offensive that men who are not particular hold their noses that they may not smell what hunger only can make them bolt. When things are too bad altogether the sailor tightens his belt, and poisons his nerves with an extra chew or another pipe. If your friend, the "Old Yachtsman," has not read the "Wreck of the Grosvenor," by all means let him do so, and perhaps he will agree that bad food has its evils as well as the demon Drink.

I am, &c., ONE WHO KNOWS.

A Provincial Teacher.—The information you desire cannot be given until next week, as the primary examinations will only terminate this (Saturday) evening. Several of the candidates have been rejected a third time, and one candidate goes back for the sixth time; he, however, is a metropolitan student.

Street Accidents in Paris.—An official report shows that during the past year there were 103 persons killed in the streets, and 1084 wounded.

A Declined "Benefit."—The offer of Miss Lonsdale, of Lichfield, to amalgamate the proposed foundation of the Henry Rogers Convalescent Institution, Wolverhampton, with the Sister Dora Convalescent Home (the building of which has been commenced at Milford, near Stafford) has been refused by the Committee of the former, the "Home" not being in the locality.

The Horrors of the Bakehouse.—We take the following respecting Mr. Inspector Lakeman's report from the Manchester Times :—

"Oh, Mr. Lakeman, do give o'er
Your statements so dejecting,
For pity's sake, let's hear no more
About this dread 'inspecting.'
Forbear this most disheartening stir
About our daily diet,
And leave us to be poisoned, sir,
Like Christian folk, in quiet."

Inquirer.—The Penarth Local Board are about to erect salt-water swimming baths at a cost of £3000.

Hospital Saturday Collections, Birmingham and Liverpool.—Mr. T. Robinson. (who is well known in connexion with the Hospital Saturday collections) has been endeavouring to find out how it is that Birmingham stands so far ahead of Liverpool in the amounts annually subscribed in connexion with the above fund. The Secretary of the Birmingham Hospital Saturday Fund has supplied him with an official statement of the collections and their expenses in that town since the establishment of the movement. During the period 1873-81 a sum of £31,200 has been divided (after deducting £2851 18s. 5d. for expenses) among the medical charities of Birmingham as the result of the Hospital Saturday movement. In Liverpool, during the same period, the amount distributed was £16,338, or little more than one-half of the sum contributed by the midland capital. In Birmingham the collection is an entirely voluntary one. The weekly system of contributing has been found there to be by far the easiest way of raising subscriptions in works and factories where large numbers are employed.

True.—Theory may be all very well, but young doctors always prefer practice.

Water-Supply for Baths in Private Dwellings.—The Sheffield Water Company has just paid the penalty of £5 each and 3s. a day for the period the Company refused to supply two consumers, who brought actions before the stipendiary magistrate in December and January last. The water-supply to the plaintiffs was cut off because they refused to pay according to an estimated scale of the Company for the baths in their dwelling-houses. The magistrate's decision was in favour of the plaintiffs, against which the Company appealed to the superior courts, who have upheld that decision.

Harrogate.—Plans for a cottage hospital have been decided upon. The building will provide accommodation for twenty patients, and is estimated to cost about £3000.

Bicycle Riding.—A lad was summoned, a few days since, at the Marylebone Police-court, for furiously riding a bicycle in the Elgin-road, to the danger of the people in the thoroughfare; the result was the running over and breaking the leg of a child. The defendant agreed to compensate the mother of the child, and the case was dismissed with a nominal fine. The use of these vehicles in the streets of London should be forbidden or permitted only under rigid restrictions.

D. W. C., Wilts.—The circular was issued from the War Office in January, 1881, and contained the following:—"Clause 68a. No medical officer will be allowed to remain in the Militia Medical Department List after he shall have attained the age of sixty-five years."

New York.—This city has a lunatic asylum in which are confined some 1200 patients, and every effort is made to provide with work all who are in any way capable of performing it. About a third of the patients are found to be able and willing to go through a regular working-day of seven or eight hours, and the superintendent is satisfied that they are capable of doing many things which they have hitherto been supposed unfit for. Among the trades not represented till recently was that of printing—notwithstanding the fact that, next to cigar-makers, printers are said to be more numerous in the New York lunatic asylums than men of any other trade.

The Sewage Ventilation, Brighton.—This subject was considered by the Town Council last week. The Works Committee recommended that Sir Joseph Bazalgette should be applied to for advice on the matter, and to make an inspection of the drainage. This suggestion was adopted.

An Expensive Night's Frolic.—Two youths, said to be medical students, have been summoned at the Belfast Police-court for wrenching knockers off doors. Thirty-five summonses were issued against each defendant. The magistrates imposed a fine of £10 on each defendant, with the alternative of three months' imprisonment and hard labour. The defendants also to pay the cost of the knockers, making a total of about £35. The Court was crowded with students.

Damages for Trespass: making a Post-mortem Examination.—A blacksmith at Sheffield brought an action in the county court to recover two guineas as damages from Dr. Spowart (a local surgeon) and a sergeant of the Sheffield Police-court. A short time ago the plaintiff's son died, and as he had been attended by an unqualified practitioner the coroner ordered a post-mortem examination. The police officer told the plaintiff's wife what time he should bring the surgeon to make the examination, but when he arrived at the house with the doctor he found that the woman had locked the door and left the house. Getting through the window, the constable let in the surgeon, who made the post-mortem examination. The plaintiff thereupon entered an action to recover damages. The judge held that the defendants went to the house in the execution of a public duty, and although they had committed a trespass not justified by law, yet their conduct, considering the peculiar circumstances of the case, was almost justifiable. Although he must give a verdict for the plaintiff, it would be for the lowest damages—one farthing—without costs, adding that, in his opinion, the case ought not to have been brought before the Court.

Memorial Convalescent Home, Essex.—It has been decided that the memorial to the late Mr. J. W. Perry-Watlington, Chairman to the Essex Court of Quarter Session, shall take the form of a convalescent home for the county, to be called "The Perry-Watlington Convalescent Home."

Sedgwick.—The objects of the Metropolitan and National Nursing Association are to provide skilled nurses to tend the sick at their own homes, and to raise the standard of nursing and the social position of nurses. There is no intention of rivalry with the hospitals, but to establish a useful alternative to those institutions. At present the Society's operations extend over fourteen parishes. All the homes founded by the Association are self-supporting.

A Benefactress.—Mrs. Turner, widow of Mr. Charles Turner, at one time M.P. for South-West Lancashire, has announced her intention of building a home for incurables in the suburbs of Liverpool. The home will accommodate 200 patients and cost £40,000. It will be suitably endowed by Mrs. Turner. A site overlooking the Mersey has been already secured.

London Schools Swimming Club.—This Club was established in 1875 to provide instruction for boys and girls attending public elementary schools in London. The boys' department maintains its efficiency, and there has been a great improvement in the girls' and female teachers' classes. The number of swimming baths secured for them has gradually increased, and it is hoped other baths will soon be opened to girls. During the past year 2500 members have joined the club.

C. Stradley W.—In Chambers' "Book of Days" it is stated that the silver cup possessed by the Barber-Surgeons' Company of London was made by order of Charles II., and presented by him to the Company, the Master at that time being Sir Charles Scarborough, who was chief physician to the King.

"For his Health's Sake."—It is reported that the present Home Secretary, in addressing a deputation of members of Parliament, magistrates, and others who waited on him at the Home Office in support of Mr. Lewis Fry's Off-Licences Bill, confessed that on health considerations he had become an abstainer, and expressed himself strongly in favour of any measure calculated to promote the increase of sobriety among the people. Does the conversion of the Home Secretary to teetotalism for his health's sake sound the death-knell of the liquor interest?

Artisans' Dwellings, London.—Dwellings for artisans are being erected in Vine-street, Tooley-street, to accommodate 400 families, at a cost of £50,000. The Improved Industrial Dwellings Company have purchased nearly two acres of ground in Islington and the Borough, which has been cleared, and buildings for the accommodation of about fourteen hundred persons of the working-classes will be forthwith commenced.

COMMUNICATIONS have been received from—

THE SECRETARY OF THE HARVEIAN SOCIETY, London; Mr. DANIEL RHEADKEN, London; Messrs. BURGYNNE, BURBIDGES, and Co., London; Dr. JAMES RUSSELL, Birmingham; THE SECRETARY OF THE SWANSEA PROVIDENT DISPENSARY, Swansea; THE SECRETARY OF THE ROYAL INFIRMARY, Glasgow; Mr. B. A. KINNE, London; Dr. THOS. MACCALL, Matlock; THE EDITOR OF THE "BRITISH MEDICAL JOURNAL"; THE EDITOR OF "HOUSE AND HOME"; Mr. BERNARD MURRAY, London; Mr. WATSON CHEYNE, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE SECRETARY OF UNIVERSITY COLLEGE, London; Dr. DAWSON WILLIAMS, London; Mr. J. H. MORGAN, London; Mr. RUSHTON PARKER, Liverpool; Dr. CREIGHTON, London; Mr. J. CHATTO, London; Dr. LUCAS, Ahmedabad; Dr. BLUMFIELD, Exeter; Dr. JACOB DUBLIN; Dr. J. W. MOORE, Dublin; Mr. BACOT, Seaton, Devon; Dr. MCBRIDE, Edinburgh; THE SECRETARY OF THE ROYAL INSTITUTION, London; Dr. WHITLA, Belfast; FORTY MEDICAL PRACTITIONERS IN NOTTINGHAM.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Le Concours Médical—Philadelphia Medical Times—Practitioner—Rocky Mountain Medical Times—Medical Register—Medical News—American Journal of the Medical Sciences—Australasian Medical Gazette—House and Home—Zeitschrift für Diagnostik und Therapie—L'Impartialité Médicale—Midland Medical Miscellany—Revista de Medicina—Canada Health Journal—Ciencias Medicas—Boston Medical and Surgical Journal—Journal of Psychological Medicine, etc.—Maryland Medical Journal—Western Medical Reporter.

APPOINTMENTS FOR THE WEEK.

May 13. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m. ROYAL INSTITUTION, 3 p.m. Mr. F. Pollock, "On the History of the Science of Politics."

15. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

16. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Professor A. Gamgee, "On Digestion."

STATISTICAL SOCIETY, 7½ p.m. Monthly Meeting.

PATHOLOGICAL SOCIETY, 8½ p.m. Specimens: Dr. Norman Moore—Hæmorrhage into Stomach; Stomachs from Poisoning by Cyanide of Potassium and Oxalic Acid; Ulceration of Epiglottitis in Typhoid Fever. Mr. Bowlby—Chondrosarcoma of Female Breast. Dr. Ralfe—Renal Calculus undergoing Disintegration. Dr. Stephen Mackenzie—Conclusion of a Case of Filarial Hæmatochyluria. Mr. Shattock—Congenital Absence of Radius. Mr. R. W. Parker—A similar Specimen (living patient). Mr. J. H. Morgan—A similar Specimen (living patient). Mr. J. Hutchinson, jun.—Psammoma of Spinal Cord. Dr. M. Ord—Acetonaemia. Dr. Sharkey—Cancer of Kidney. Mr. Treves—Congenital Sacral Tumour. Dr. Turner—Cerebral Aneurism. Dr. Hobson—Congenital Obstruction of Bile-Ducts. Card Specimens: Dr. Tyson (of Folkestone)—Fibroid of Uterus; Stricture of Pylorus; and others.

17. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Douglas Powell.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY (Council Meeting, 8 p.m.), 8½ p.m. Ordinary Meeting.

18. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m. ROYAL INSTITUTION, 3 p.m. Professor Dewar, "On the Metals."

19. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Sir F. Bramwell, "On the Making and Working of a Channel Tunnel."

ORIGINAL LECTURES.

THE CROONIAN LECTURES

ON

THE CLIMATE AND FEVERS OF INDIA.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., etc.

THE CONTINUED FEVERS OF INDIA.

LECTURE III.—PART I.

EPHEMERAL AND THERMIC FEVERS.

IN my last lecture I described paroxysmal fevers of malarial origin, and also certain morbid conditions depending on the same causes. I now proceed to consider fevers which are neither regarded as primarily malarial, nor are of a paroxysmal character, and in their simple forms are due to ordinary causes such as produce febrile disturbance anywhere; also others which are so closely assimilated to the malarial remittents and specific fevers, that it is difficult to differentiate, and obviously impossible to consider them under such designations as febricula or ephemeral fever.

As to the precise nature of their cause, we know no more than we do of that of malaria itself, nor are we assured that there is an essential difference, unless it be that a predominance of animal organic decomposition and effluvia gives a distinctive character; but the importance and frequent severity of the fevers and their etiological affinity to the remittent forms, renders it expedient to place them under a distinctive heading, and I would therefore suggest that the following classification might be adopted, which, while fully acknowledging the other forms, recognises the existence of a type of fever of a continuous or sub-continuous nature, which, by some authorities, is ascribed to the combined operation of a double agency; by others to malaria alone, or to changes that result in transformation of type, especially when certain visceral, *i.e.*, hepatic and gastro-intestinal, complications occur.

I would propose the addition of endemic enteric or continued fever, but would not insist on the term "endemic" if another would more appropriately indicate the type of fever to which I refer. The arrangement to be as follows:—

- (a) Ephemeral or febricula.
- (b) Ardent or thermic fever.
- (c) Endemic enteric or continued fever.
- (d) Specific typhoid fever.
- (e) Dengue.
- (f) Typhus.
- (g) Relapsing.
- (h) The adynamic contagious fever known as Pali-disease, mahamurri, or Indian plague.
- (i) The specific yellow fever, should it ever appear in India, as distinct from the severe form of bilious remittent, which it closely resembles.

This addition to the present nosological arrangement would give greater precision to registration and lead to more definite conclusions as to the true etiology and pathology of disease, about which it cannot be denied there is at present some confusion in reference to its true nature and causation, it being regarded as remittent, continued, or specific enteric, according to the views of different observers.

Without for a moment presuming to question the diagnosis, I venture to think that there may be a too rigid adhesion in India to views of disease as it occurs in this country, and that sufficient allowance is not always made for the influence of new conditions whereby disease may be modified and made to assume features strange to it in temperate climates.

Some medical officers of experience see reason to modify their views of disease after experience in India; and it is fortunate for the future of tropical pathology and medicine that they do so, as a too exclusive application of theories which are strictly appropriate here will not always be so in India and in the tropics. The late Dr. Babington, in an address to the Epidemiological Society, made the following remarks, which I cannot help thinking are applicable:—

VOL. I. 1882. No. 1664.

"In the infancy of geology, many phenomena observed in the arrangement of the earth's crust, as it is found on this island, were supposed to furnish fixed laws, and thus gave rise among our philosophers to divers ingenious generalisations. But when these same philosophers had, from the establishment of universal peace, the opportunity of taking a wider range and of studying the earth's structure, not in this country alone, but over the whole surface of the globe, they discovered in many instances that what they had supposed to be general laws were, after all, only exceptional cases. We require, therefore, in a study of disease, as of geology, a wide field, in order that we may found theories on a sufficiently broad basis to avoid the risk of coming to partial and erroneous conclusions." (a)

Or, as Dr. Morehead says in a letter to me,—

"Disease in India is not disease in England, and a catholic science of medicine can only be created by the harmonious action of labourers in varied climates and conditions of people, and nothing can be more fatal to this issue than assimilation by official control.

"The manner in which Bryden has shown the relations of enteric fever in India to the age and service of soldiers has, I think, had the tendency to suggest, what he cannot have intended, that all the fevers of the young soldier are enteric. This, as you remark, would be absurd. Take, for example, the record of the contrary in Sections 2 and 3 of Chapter ix., page 162, of the second edition of my 'Clinical Researches.' Febricula and ardent continued fevers ought to be, with the sanitary system of the present, much less common than they were in the past; but you cannot destroy the fact that they have been and will be again when the causes are allowed to become operative."

Ephemeral Fever or Febricula.

A mild form of simple fever is of frequent occurrence in India, which is due to ordinary causes, such as changes of temperature, excesses in eating or drinking, fatigue, excitement, disordered secretion, functional derangement of abdominal viscera. It is most frequent in the hot seasons, but may occur at any time. When it happens in persons newly arrived in the country it is probably free from any malarial taint, though the onset may resemble ordinary ague. In natives and old residents these simple attacks of ephemeral fever or febricula are probably of a malarial nature, and if not checked may assume the character of an ordinary intermittent. The symptoms are malaise, headache, foul tongue, white, with red edges; disordered bowels, nausea or sickness; high temperature, 104°-106°, preceded by chills, rigors, malaise, muscular pains, followed by diaphoresis. In plethoric or intemperate people the reaction may be severe, with high fever and delirium, to which may be added congestion of liver or gastro-intestinal mucous membrane; but generally the characters are simple, and in otherwise healthy people readily yield to treatment, which consists in free relief of the bowels, in some cases an emetic, diaphoretic medicine, tepid sponging, a restricted diet, and rest. With this the patient is generally restored to health in a few days. Most people soon after arrival in India have fever of this character, and, as a general rule, with the most ordinary care it is soon recovered from. The change of life, the heat, the functional derangement of stomach and liver, the irritation of mosquito-bites, want of rest, etc., all tend to develop a condition of disturbed innervation and nutrition, and blood-contamination by retention of effete products and imperfect elimination and assimilation, that find expression in a febrile condition. Dr. Macleod, of Calcutta, expresses it tersely as follows:—"There is a hot-weather fever which I call the punkah fever, due to checked skin depuration; another in the rains, due to deranged liver-action; another in the cold weather, caused by too much work being thrown suddenly on the kidneys. These fevers do not of necessity require quinine, and yield to action on the bowels, skin, kidneys, or liver. They are apt to assume a remittent type, and enteric complications are not uncommon. In fevers of this form emetics are often of service, and salicylates, by stimulating skin, liver, and kidneys, are useful." In this fever there is nothing peculiar unless complications arise, when it may be prolonged and assume a more severe condition.

It is needless to say more about treatment than that aperients, saline diaphoretics, cold or tepid bath, restricted

(a) Address to Epidemiological Society, by Dr. B. G. Babington, December, 1850.

diet, and rest, with a few doses of quinine (this is always desirable), are generally sufficient to restore the patient to health. Few escape, and to Europeans it is an acclimatising process.

Ardent or Thermic Fever.

This is a much more serious disease than ephemeral fever, and varies in intensity from simple to intense fever, or, reaching its maximum, to sunstroke—the exciting cause being solar or artificial heat. This form of fever occurs chiefly where the heat is most intense in the months preceding the rains. In the hot winds it is frequently very fatal even to natives, who succumb to a rapid and acute form of it, known as heat-apoplexy, hot wind-stroke, or sunstroke, which may be immediate, or a high state of pyrexia leads up to it less rapidly.

The effects of over-heating the living body have been described by C. Bernard, Lauder Brunton, and others. Dr. Wood, in his recent magnificent monograph on Fever, gives the results of experiments which show that, above a certain degree, heat, by inducing vaso-motor paralysis, causes intense pyrexia, which, if not mitigated, rapidly destroys life by causing failure of the respiratory centre. These researches confirm the fact that high temperature is capable of causing most fatal nutritive disturbances, and that thermic fever does the same. The peculiar odour and offensive perspiration, the altered or suppressed urine, the frequent watery, offensive, involuntary evacuations, the broken-down crases of the blood found after death, are all indications of the profound influence excited by excessive temperature. (b)

Heat may cause simple continued fever, but if aggravated the symptoms become more urgent, and the temperature may rise to 106° – 108° , or higher, when life is in the greatest peril. The predisposing causes are previous illness, debility, intemperance in food or alcohol, constipation, bilious derangement, imperfect breathing from crowded rooms and barracks; crowding, ill-ventilation, defective perspiration. The vitiated and over-heated blood acting on the nerve-centres paralyses the heat-controlling centre; there is great rise in temperature, producing congestion and death if the person affected is not relieved.

The effects of heat in causing fever or those more serious conditions known as sunstroke are as follows:—

There is syncope or exhaustion caused by the action of the direct rays of a powerful sun; the centres are affected, respiration and circulation fail, and death may result.

Over-heating of the blood and nerve-centres, either by direct exposure to the sun's rays or to high temperature, causing vaso-motor paralysis and hyperpyrexia, respiration and circulation fail, and asphyxia follows, or fever which may become intense and lead to sunstroke. Recovery is often incomplete, owing to structural changes, which give rise to a variety of symptoms of a grave character.

Simple exhaustion and syncope may occur during great fatigue or over-exertion, or when there is depression of vital power from any cause during exposure to a high temperature, as in the case of engine-room men in steamers in the tropics, when the temperature in the vicinity of the furnaces where they are employed rises to 120° and upwards; or in the case of men who are exposed to the intense heat and light of the sun's rays, which, taking effect on the head, neck, and body, produce a condition like shock. In the first case the skin is pale, cold, and moist, the pulse feeble. Death may occur from failure of the heart, but recovery is frequent; or asphyxia and apnoea may supervene after premonitory symptoms of depression and weakness, during exposure of the head and spine to the direct rays of a powerful sun, when the atmosphere is much heated, and the nervous energy is depressed by fatigue, illness, or dissipation. The respiratory centres are overwhelmed by the sudden rise of temperature, and respiration and circulation fail. When death takes place suddenly it has been ascribed to rapid coagulation of cardiac-myosin.

This, however, is probably a post-mortem change: the heart's action having been brought to a close by heat, in the manner shown by Claude Bernard and Lauder Brunton, that the effect of a very high temperature on animals is

first to accelerate, and finally to stop the heart, in a state of tetanic contraction.

Recovery is sometimes tedious and imperfect, ending in serious impairment of health or intellect.

In other cases there is ardent fever, the body generally being intensely heated. This may occur independently of the direct sun's rays, at night—a condition which may come on in ordinary health, but is more likely to do so in the debilitated, or it may complicate any other disease, and especially malarial fever,—in the shade, in a house or tent, especially in persons who are depressed by fatigue, bad air, over-feeding, alcoholic stimulants and consequent depression, want of rest, or illness, and notably when the air is impure from overcrowding, or from insufficiency of cubic space.

The body temperature may rise gradually or rapidly to 108° , or even higher; there is dyspnoea, hurried respiration, restlessness; pungently hot skin, which is sometimes dry, occasionally moist. The pulse varies; in some it is full and labouring, in others quick and jerking; the head, face, and neck are livid and congested; the carotid pulsation very perceptible; pupils, at first contracted, dilate widely before death. Coma, stertor, delirium, convulsions, frequently epileptiform in character, with relaxation of sphincters, and suppression of urine, are the precursors of death by asphyxia, and there may be cerebral hæmorrhage.

A large proportion of the fatal cases among Europeans in India is so caused. Partial recovery may be followed by relapse and death; or secondary consequences may destroy life or impair health and intellect at a later period. The premonitory symptoms of this form of the disease appear some hours or even days before the dangerous conditions supervene. There may be general malaise, disordered secretions, profuse and frequent micturition, restlessness, insomnia, apprehension of impending evil, hurried and shallow breathing, præcordial anxiety, gasping, giddiness, headache, occasionally nausea or vomiting, thirst, anorexia, fever, which soon amounts to fervent heat of skin; the surface may be dry or moist; the pulse varies. These conditions gradually become aggravated, frequently are worst at night, and the patient may pass into a state of unconsciousness and die.

Ardent fever of this character may supervene on ordinary ephemeral fever; heat alone, especially when the atmosphere is loaded with moisture so as to prevent evaporation from the person, being the real cause. Malarious and hygrometric conditions have no special influence beyond that which they exert in predisposing the person to suffer.

The dry atmosphere of Upper India, with its hot winds, is better tolerated than the damp atmosphere of Lower Bengal or parts of Southern India, though the temperature is lower: Hot dry air favours evaporation, and thus keeps the body cool; whilst in damp air, as evaporation decreases, the natural cooling power is greatly diminished.

Vigorous, healthy persons of moderately spare frame, with sound viscera, and temperate habits, can sustain a great amount of heat if the atmosphere be pure and moderately dry. Acclimatisation has some influence in conferring toleration. Fresh arrivals in India are more prone to suffer than those who have become accustomed to the climate and have learned how to protect themselves. It is well known that a native can bear an amount of sun on his bare head and naked body with indifference, almost pleasure, that would prostrate a European. But when the temperature rises above a certain standard all succumb, and natives of India suffer and die like others.

The extent and duration of toleration of heat depend much on the vigour of constitution and actual state of health. The refrigerating powers of the body, in health, enable it to support a temperature considerably above that of the blood. In the hot winds little inconvenience is felt so long as perspiration is free, but when that fails, suffering ensues, and the danger is great.

But of those who recover, or rather who do not die, many are permanently injured and remain invalids for the rest of life, which is frequently shortened by the changes induced. These may be due to obscure cerebral or meningeal changes, which affect the sufferer in various degrees of intensity. Irritability, impaired memory, epilepsy or epileptiform attacks, headache, mania, partial or complete paraplegia, partial or complete blindness, extreme intolerance of heat, especially of the sun's rays, rendering a person quite incapable of serving in hot climates or of enduring any ex-

(b) "External heat applied to the body of a normal animal (or man) so as to elevate the temperature produces derangement of the functions of innervation, of circulation, of nutrition and secretion, similar to those seen in natural fever, the intensity of the disturbances being directly proportionate to the rise of temperature."—Wood, "Fever."

posure to the sun; or, it may be, gradually ending in complete fatuity, dementia, or epilepsy, perchance both; chronic meningitis, with thickening of calvaria, which may account for the intense cephalalgia; or in a lesser degree, in disordered innervation and general functional derangement, which seriously compromise health.

In cases where death has occurred suddenly, as from syncope or shock, there is no very remarkable morbid change. The heart may be firmly contracted; but not always so, for it is often flaccid. The lungs, brain, and membranes may be congested, but they are sometimes quite the reverse. The venous trunks, especially those of the abdomen, and the right side of the heart itself, may be filled with blood, which is dark, grumous, often imperfectly coagulated, and effused in patches of ecchymosis, rendering the body rapidly livid. The coagulability of the blood is impaired, and it is deficient in oxygen.

In death from ordinary cases of thermic fever the lungs are often (not always) deeply congested; the heart is firmly contracted by coagulation of myosin, and the whole venous system is engorged. The body, even before death, may be marked by petechial patches and extensive livid ecchymoses. The blood is generally more fluid than natural, and may be acid in reaction. The globules are sometimes crenated, and have a diminished tendency to form into *rouleaux*. The body for some time after death retains a high temperature. When first opened, the viscera and interior feel pungently hot. Rigor mortis comes on very rapidly. The brain and membranes may be congested; in some cases there are evidences of cerebral hæmorrhage and serous effusions in the ventricles.

In cases of simple exhaustion, remove the person to a cooler place, if possible; give a douche, but not too prolonged, or it may depress; rouse and gently stimulate; remove tight and oppressive clothing; apply ammonia to the nostrils, etc.; enjoin rest, and the avoidance of exposure to over-fatigue or to great heat.

When the person is struck down suddenly by sun, remove him into the shade, and let a douche of cold water fall from a height on his head and body, the object being to reduce temperature and to rouse by reflex action. During the assault on the "White House picket," at the capture of Rangoon in 1853, numbers of men struck down by the fierce April sun were so treated; only two, who had been bled, died.

Sinapisms may be applied to various parts of the body, legs, abdomen, etc., and stimulating enemata may be useful.

When I say such cases recovered, I refer to the reaction at the time. In some there were consecutive symptoms of fever, headache, etc.; could we trace their subsequent history, it is probable we should find that complete recovery never occurred. If recovery be incomplete, and followed by indications of intracranial mischief, other treatment of a more active character may be needed.

Future exposure to the sun should be carefully guarded against; and, unless recovery be complete, the sufferer should be removed to a cooler climate, and protected from excitement of mind or body, whilst the greatest care is taken to avoid all errors or excesses of diet and stimulants.

In thermic fever the object is to reduce temperature as speedily as possible before tissue-changes have been caused. As the hyperpyrexia is due not only to the direct action of heat on the centres, blood, and tissues, but to the vaso-motor disturbance, remedies that may influence this are indicated. The use of quinine by hypodermic injection has been thought to produce good results by reducing temperature.

Bleeding has been abandoned except in rare and peculiar cases. There are cases in which it may be necessary in order to avert suffocation, but they are, I think, exceptional. Where it has appeared at first to give relief and to mitigate the symptoms, the improvement has generally been transient, and followed by relapse into a more dangerous and fatal condition.

The treatment generally consists in the application of cold by affusion, or by ice, taking care not to reduce temperature too low.

A thermometer in the axilla, mouth, or rectum will keep one informed in this respect, and danger would attend continued depression of the temperature below the normal blood-heat. The bowels should be relieved, and cooling medicine given. The earliest and most severe symptoms having subsided, the febrile condition that follows is to be treated on ordinary principles; the diet must be carefully regulated. If after severe cases, as improvement progresses,

symptoms of intracranial mischief supervene, iodide of potash and counter-irritation may be of service; removal to a cooler climate is essential. As a general rule it is desirable that the sufferer should not return to a hot climate, and he should be guarded against all exposure to heat, overwork, and anxiety of any kind.

In simple cases of sun-fever, where the reaction is not excessive, the treatment is that of ordinary ephemeral fever.

CLINICAL LECTURES ON DISEASES OF THE ABDOMEN.

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LECTURE XII.

ON THE PHYSICAL EXAMINATION OF THE ABDOMEN—Continued.

WE were engaged in discussing the special examination of the stomach and intestines, and will now proceed to the consideration of the remaining points.

4. In the examination of the stomach, information may be obtained in certain instances by the passage of a probang or some similar instrument along the œsophagus. In this way an obstruction at the cardiac orifice might be recognised; and also the lower limit of a dilated stomach might be determined, the end of the instrument being felt through the abdominal walls. Of course such a procedure as this should be practised with great care, and usually it is best to have it done by a competent surgeon.

5. Direct examination of the anus and lower end of the bowel is of essential service, whenever there is any reason to suspect disease in this part of the alimentary tract. In the first place inspection should be practised, and this may at once reveal the nature of the mischief. In order to see the interior of the rectum, some form of speculum is required. Then digital examination is often of much value, or possibly the passage of the whole hand into the bowel may be useful. Lastly, the passage of different-sized bougies may be needed, and this also requires to be done with due caution and gentleness. It has happened that a bougie has been thrust through the wall of the bowel.

6. Occasionally some aid is derived from observing the effects of a collection of gas or fluid in the alimentary canal, artificially produced. Thus, in the case of the stomach, it has been recommended to give the patient a solution of carbonate of soda, followed by one of tartaric acid. The gas thus evolved in the stomach will indicate whether the pyloric orifice is obstructed or incompetent: in the former case being retained and distending the viscus; in the latter passing rapidly through the opening. It may also indicate the limits of a dilated stomach, which, when filled with gas, can be mapped out by percussion. I have no personal experience of this method of investigation, and feel but little disposed to practise it.

As regards the intestine, it may be useful in certain instances to inject gas or water through the anus, with due care, in order to determine the seat of an obstruction, or to indicate a dilated portion of the bowel. This must also be done with proper caution and gentleness. It may be observed that this method is occasionally serviceable in the diagnosis of doubtful renal and other tumours.

7. It may be requisite to resort to operative procedures for the purpose of diagnosing certain conditions of the alimentary canal. A fine puncture into the bowel may be made without any harm resulting therefrom; and morbid states of the bowel constitute one of the most important class of cases in which an exploratory incision into the abdominal wall, and direct examination of its contents is permissible.

B.—LIVER AND GALL-BLADDER.

1. The hepatic organs are usually easily investigated by certain of the ordinary methods of examination. Only in exceptional cases does inspection give any definite information, by revealing the outline of an enlarged liver or of a

distended gall-bladder. Palpation and percussion are the modes which, in the large majority of cases, afford any positive signs, and, as a rule, they give very satisfactory information. By palpation the extent and outline of the liver below the margin of the thorax can generally be readily determined; as well as the condition of its surface and edge, its consistence, and other characters—points of considerable importance in relation to this organ. Here manipulation with both hands is very serviceable, and the margin of the liver may often be clearly defined by using the side of the fore-finger of the right hand, and pressing with it in an upward direction. It is also in relation to the liver that sudden pressure is most commonly useful, when ascites is present, for the purpose of pushing aside the fluid, and coming down upon the solid organ. Palpation is again serviceable in examining the gall-bladder, so as to detect distension of this viscus with fluid; accumulation of gall-stones, which yield a most peculiar sensation; or a solid growth. When there is a collection of fluid, this may sometimes be temporarily diminished by pressure.

Percussion is perhaps, on the whole, the most generally useful mode of examination applicable to the liver. Not only can it be practised over the abdomen, so as to help in determining the limits and characters of the organ in this direction, but also over the thorax; and this is the only method which can give us any information regarding the liver where it is covered by the ribs. I need scarcely tell you that the percussion-sound is absolutely dull, and in an upward direction it is particularly important to define the shape of this dullness, as evidenced by the outline of its upper limit, as well as its extent. Percussion tells us of the exact situation of the organ, as well as of its enlargement or diminution in size. Particular care is necessary, however, in practising it, not to be misled by neighbouring conditions which modify the percussion-sound, such as distension of the stomach or intestine with gas, a fecal accumulation in the colon, or a collection of fluid in the pleura. In any doubtful case you must see that the stomach and bowels are properly emptied. I would strongly impress upon you not to forget the percussion-sensations in relation to the liver; they often give most valuable information.

Auscultation only now and then affords any positive signs in connexion with the hepatic apparatus. It may reveal a friction-sound over the liver in exceptional cases, produced during deep respiration; or the sound due to calculi in the gall-bladder, elicited by manipulation, or by shaking or moving the patient.

2. It may be separately noticed that the effects of the movements of respiration upon the liver, as modifying the signs elicited by palpation and percussion, may be worthy of note in some instances. Also, with regard to posture, while most cases can be satisfactorily examined while the patient is in the recumbent position, aid is sometimes derived from making him stand erect, or incline towards the left side.

3. The use of the exploring trocar or aspirateur may be specially called for in the examination of the liver, in order to determine the exact morbid condition present, when the organ is obviously diseased. This method may also be applied to the gall-bladder. It may also be remarked here that the removal of ascitic fluid frequently enables the liver to be readily examined, when previously it could not be reached satisfactorily.

C.—PANCREAS.

With regard to the pancreas, it will be sufficient to state that this organ cannot be investigated in any other way than by palpation. This must be made deeply in the region which it occupies, the legs being well drawn up, the abdominal walls thoroughly relaxed, and the alimentary canal as empty as possible. Sometimes help is obtained by making pressure laterally from each hypochondrium; or by placing the patient on his hands and knees. In many cases, however, the examination of the pancreas is anything but satisfactory; and its diseases cannot definitely be made out in this way. Still, it may give positive results, especially if the examination is made repeatedly, under favourable circumstances.

D.—SPLEEN.

1. Palpation and percussion are the only methods which, except in rare instances, give any information about the spleen; and when this organ is diseased, these modes gene-

rally reveal the fact clearly enough. Now and then the outline of an enlarged spleen is obvious on inspection. Palpation is of the greatest service when the spleen is so enlarged as to extend below the margin of the thorax. It can then, as a rule, be readily felt, and its outline and characters determined. In order to feel the spleen properly, the best plan is, standing on the left of the patient, to place the palmar surface of the fingers of the right hand behind its posterior border, and then to press it well forwards, while the fingers of the left hand are employed to feel its anterior margin and surface. The organ can often be held between the two hands, and moved backwards and forwards. Sometimes the anterior border can be grasped between the fingers and thumb of one hand, when the abdominal walls are thin and relaxed, and the margin of the spleen very sharp. The lower end can be made out by three fingers of either hand, as may be most convenient.

Percussion can alone give us any signs in connexion with the spleen, where it lies within the limits of the ribs. It also reveals absolute dullness over such portion of the organ as may come below the thoracic margin.

Auscultation has been said to have revealed a splenic murmur in some cases of enlarged spleen, but such a sign has never come under my notice.

2. The effect of a full respiration upon the position of the spleen is frequently very marked, and always deserves special attention. Not uncommonly it can be felt, when enlarged, below the margin of the chest at the end of a deep inspiration, when it is not perceptible in ordinary breathing. The organ may also be felt to move freely during the act of respiration, when of such dimensions as to extend below the ribs. With regard to posture, it sometimes helps in examination of the spleen to make the patient bend forwards and towards the right; and change of posture not unfrequently causes an obvious change in the position of the spleen, which is occasionally visible, but is especially indicated by palpation and percussion.

3. In extremely rare instances it might be desirable to pass an exploratory trocar or the aspirateur into an enlarged spleen, in order to determine the nature of the disease.

E.—KIDNEYS AND BLADDER.

The examination of the urinary apparatus comes prominently within the domain of practical surgery in several particulars, and these it is only my intention just to allude to in the following remarks.

1. Palpation and percussion are, again, the only ordinary methods which are practically available in the examination of the kidney or bladder. In the case of the kidney, these modes disclose any marked enlargement in connexion with the organ; and some observers think they can thus define it when of its ordinary size. Displacements of the kidney can also be recognised in this way, especially that form known as "movable kidney." There is nothing particular to be noticed with regard to conducting the examination, except that free manipulation in various ways may be required. Palpation and percussion are useful in determining the existence of an accumulation of urine within the bladder, or possibly of a calculus of very large size. It may be mentioned that in exceptional instances a calculus has been felt in the ureter, through the abdominal wall.

2. The examination of the urine is necessarily of essential consequence in relation to the urinary organs, and thus alone is it possible, in many instances, to make a diagnosis of the presence and nature of a disease affecting some portion of the apparatus. It is beyond my purpose to enter into an account of this examination at present, as it is given in sufficient detail in text-books. I will only remark that in some instances the morbid characters of the urine are at once evident, as when blood, much mucus, pus, and other visible materials are present; in others the excretion has to be examined carefully, both chemically and microscopically, for albumen, the different forms of casts, and other elements.

3. Digital examination through the rectum or vagina may help materially in investigating the bladder in some instances, and in this connexion I may allude to the assistance thus derived in the examination of the prostate gland in the male.

4. The use of special instruments is imperatively demanded in the examination of the bladder, in a large proportion of cases where this organ is in any way implicated. I have already noticed in a former lecture the mere use of the

catheter to empty this viscus of an accumulation of urine. It will suffice to mention further the employment of different kinds of sound in the investigation for calculus, and of the endoscope.

5. It may be allowable to make an exploratory puncture into the kidney, if an accumulation of any kind of fluid is suspected; or into the bladder. The kidney is also one of the organs in connexion with which it is thought justifiable, under certain circumstances, to make an exploratory incision, with the view of searching for calculi supposed to be lodged in the renal pelvis.

F.—ABSORBENT GLANDS.

In the large majority of cases palpation or manipulation is the only mode by which these structures can be examined, and not uncommonly even this gives very unsatisfactory results. In order to feel the absorbent glands, it is usually necessary to press deeply, the abdominal walls being fully relaxed, in order to reach the posterior part of the abdomen. Another plan, applicable in the case of children, is to grasp the anterior abdominal wall, and with it the intestines and mesentery, between the fingers and thumb; or pressing deeply with the fingers of both hands, one placed on each side of the abdomen, to bring them together in such a way as to include the above-mentioned structures between them. In this manner it may be practicable to feel the mesenteric glands when they are enlarged.

(To be continued.)

FASTING.—Dr. Greenley terminates a paper which he read upon this subject before the Kentucky State Medical Society (*Louisville Medical News*, April 29) with the following conclusions:—"1. That man possesses the capacity of fasting, without suffering any special deleterious effects, a much longer time than was formerly thought possible for him to endure. 2. That the protracted abstinences of Dr. Tanner and Mr. Griscom have convinced the world that the fasts practised in ancient times, as cited in the Bible, were not necessarily miraculous in their character or sustained by Divine influence. 3. That those who have been heretofore sceptical as to the truthfulness of said Scriptural statements will now perhaps have their incredulity removed. 4. That the man who possesses the most adipose tissue, other things being equal, is enabled to abstain from food longer than his fellow possessing less of that material. 5. That quietude both of mind and body adds very materially to the ability to protract the fast. 6. That the inferior animals, especially the pig, possess greater endurance in this respect than man. 7. That this power of endurance depends in a great measure on the fact that in the hog there is no mental activity. Hence the greater ability possessed by the imbecile to fast than by those whose mental faculties are in a normal condition."

EPIDEMIC OF MEASLES AT LYONS.—The *Lyon Méd.* (April 23) states that one of the severest epidemics of measles that has ever been known prevails in that city. During the year 1881, with a population of 372,887, there only occurred ten deaths from measles. During January, 1882, there were two or three deaths per week, and in February they increased to five, and remained stationary. In March the number considerably increased, so that during the last fortnight of that month there were twenty-six deaths; and in April these almost doubled in number, there having been forty-six deaths in the first two weeks. The fatal complications consisted in various forms of bronchopneumonia, which almost always proved fatal in the hospitals of the town. As has been always observed in the history of this disease, the epidemic was preceded by the prevalence of a catarrhal constitution, which this year was unusually prevalent at Lyons. [The deaths from measles registered from April 1 to May 6 numbered 114.]

LUXATION OF THE UNCIFORM BONE.—Dr. James Buchanan, writing in the *Philadelphia Medical Reporter* (April 15), says:—"A few weeks ago I was called to see a railroad brakeman who had fallen from a car, striking his hand against the car as he fell. He was found to have a simple luxation of the unciform bone anteriorly. It lay just beneath the skin, and its process could be distinctly outlined. Reduction was effected by direct pressure on the bone, while the borders of the hand were approximated. But few writers recognise a simple dislocation of this bone, and it is said that there are no cases recorded."

ORIGINAL COMMUNICATIONS.

A CASE OF

"THORACIC CANCER" (LYMPHO-SARCOMA):

POST-MORTEM AND REMARKS.

By ARTHUR BLOMFIELD, M.D. Aber., M.R.C.S.,

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I AM indebted to the courtesy of Mr. W. A. Budd, Surgeon to the Devon and Exeter Hospital, for permission to use the notes of the following case.

Mary Ann G., aged sixty-four, a widow, living at Sidmouth, admitted into the Hospital on July 28, 1881, for threatened asphyxia from a large tumour pressing on the trachea. She is a fairly healthy-looking woman for her age; sitting propped up in bed with the head bent forwards; the breathing is rapid, stridulous, and laboured. The hands are cold, but there is no marked cyanosis. There exists an enormous hard nodulated mass in the neck, involving the thyroid gland and the glands on the left side of the neck; the entire posterior triangle appears to be occupied by a smooth, more or less uniform, gland-mass; there is also one enlarged and hard gland just below the right ear. There is dulness over the front of the sternum to rather below its centre; complete dulness over the left chest in front and behind, with absence of all breath-sounds. The right chest is more or less free, but it is almost impossible to make out the character of the chest-sounds, owing to the noisy tracheal breathing. The heart-sounds at the apex are clear, but at the base feeble and distant; the heart is not displaced.

History of Attack.—She says that the enlargement in the neck, especially that on the left side, has been gradually coming on during the last two years. The breathing has been quite easy until the last six or seven weeks, but since then she has been obliged to sit up in bed in order to get her breath, which has been laboured, noisy, and loudly inspiratory in character. There has been dysphagia during the last seven weeks, and now she cannot swallow solid food at all, and can only take small quantities of liquid food at a time. There has never been hæmoptysis or hæmatemesis, and there has been very little pain all along. During the last year she has lost flesh.

The opinion formed upon the case was that the thyroid gland and the glands in the neck were enlarged by a deposit either carcinomatous or sarcomatous—the probability being greatly in favour of the latter; also that there was probably a further mass in the mediastinum, and that the lungs were involved in the growth. There could be no doubt that the left chest was full of fluid.

She remained under notice six days in much the same state; her mind was quite clear, and the state of the breathing was the same as on admission. At times the face and extremities became cold and cyanotic; she frequently dozed in a semi-recumbent position. She died quietly on August 3.

There are several points of interest about the case.

Though this enormous mass had existed for two years, and evidently pressed upon and displaced the trachea and œsophagus, yet the breathing and swallowing remained perfectly easy and quiet until about seven weeks before her death; and it seems probable that the chief exciting cause of the rapidly supervening dysphagia and threatened asphyxia was the great effusion of fluid into the left chest, causing collapse of the left lung; aided, no doubt, by the pressure of the softer growth within the chest. The absence of pain, too, throughout the case is worthy of note. Again, the skin over the enlargement in the neck was quite healthy; there was no tendency to ulceration, which would have been probable had the case been one of carcinoma.

Post-mortem, thirty-three hours after Death.—Rigor mortis had passed off. Neck: The entire thyroid gland was greatly enlarged, and converted into a hard and more or less uniform swelling, pressing upon and somewhat flattening the trachea. When cut into the gland was quite firm, and of a dirty white-brownish colour. The glands before referred to were also similarly enlarged, hard, and when cut into of a dirty brown colour. Chest: On removing the sternum, the left pleural cavity was full of dark-coloured serum; the left lung was completely collapsed and pressed upwards and

backwards. The greater part of this lung was infiltrated with nodulated, reddish-white masses; the root of the lung was surrounded by a soft white mass, looking like encephaloid cancer, and easily breaking down when handled; a similar growth extended into the mediastinum. The right lung was studded on the surface by irregularly raised and hard patches of new growth of a reddish-white colour. Some of these patches were quite small and bead-like; others were as large as a florin. The growth extended into the lung-tissue, but was most marked on the surface. The costal pleuræ appeared quite healthy; there were no adhesions or evidence of any acute pleuritis. The heart was small, but normal in position, and there was no new growth in its substance. Liver large, but healthy. Both kidneys congested. The other organs were not examined. Microscopically, the new growth had the general character, of round-celled sarcoma, mixed with spindle-cells, especially in the thyroid body and glands of the neck. In the thyroid gland, which was greatly increased in size by the new growth, transverse sections showed in many of the vesicles collections of well-defined round cells; the connective-tissue between the vesicles appeared as well-marked broad bands; spindle-cells appeared in this tissue, and between the connective-tissue bundles in many places are rows of small round nucleated cells. Some of the vesicles appear well-nigh normal, and are occupied by a fatty metamorphosis of the original gland-cells. The glands of the neck show well-marked collections of small, dark, nucleated cells, and in parts well-marked spindle-cell elements. The portions of lung examined from near the surface show patches of black pigment, with a large infiltration of small round cells and some spindle-cells; the collection of small cells being especially marked in the coats of the vessels cut transversely. (I am indebted to Mr. Brewster, of the Great Northern Hospital, London, for the sections from which this brief description is given).

Remarks.—From the patient's statement it appears that she took no notice of her illness until two years ago, when she first complained of a painless and small enlargement in the front of the neck (thyroid gland), looking like ordinary goitre. Then, gradually, the neighbouring glands became involved, increasing continuously and slowly in size. At first her health did not suffer, for it is only during the last year that she has lost flesh; and only during the last seven weeks that she has had difficulty in breathing and dysphagia. It seems probable, therefore, that the growth first began in the thyroid gland, spreading to the glands of the neck. The post-mortem shows these parts to be hard and firm in consistence; in fact, they exhibit the appearances consistent with a long-continued chronic growth, in great contrast with the deposit in the mediastinum and lungs. Taking its origin, therefore, above, the disease gradually spread downwards into the chest, involving the mediastinal glands and the lungs. Here the mass shows evidence of a more rapid and malignant growth; it is very soft and white, looking very much like brain-substance or encephaloid cancer. The scattered white patches in the left lung especially, but also those in the right lung just beneath the pleura, are suggestive of an embolic origin. The large effusion of serum into the left pleural cavity seems to have been the natural termination of the case, and did not depend upon a previous pleuritis. There can be no doubt that the case corresponds in its pathological history to lympho-sarcoma ("thoracic cancer"), which is described by Flint (*vide* "Principles and Practice of Medicine," fifth edition, page 282) as "taking its origin usually in the bronchial or cervical lymphatic glands, and extending both by continuity and by metastases into the lung. The structure of the tumour is that of lymphatic tissue; there is a network of anastomosing fibres or cells, densely infiltrated with small round cells (lymphoid cells). Caseous degeneration is rare, but a fibroid metamorphosis is more common. The new growth advances chiefly along the adventitia of the bloodvessels and the bronchia." In the *Medical Times and Gazette* (vol. ii. 1861, page 175) a report is given of M. Busch's experience on glandular sarcomata of the neck. In reference to their removal, he points out that a complete extirpation is attended with great difficulties, chiefly if such tumours have their origin in the neighbourhood of the large bloodvessels of the neck, and from there extend to every side, and at last completely dislodge all surrounding tissues. M. Busch is never eager to operate in such cases. He records a case in which removal was attempted, but was attended by rapidly fatal results. In a

discussion which followed as to the possibility of curing such tumours by other than operative proceedings, Professor C. O. Weber related a case in which a glandular sarcoma below the lower jaw, of the size of the fist, in a young man, had become entirely atrophied by the persevering use of cod-liver oil internally, and ointment of iodide of potassium and iodine externally. Fatty degeneration sometimes occurs in these tumours, and that appears to be the termination which would be desirable, if possible, to bring about. (See also a case of cancer of the thyroid gland, *Medical Times and Gazette*, vol. i. 1858, page 400.) If diagnosed sufficiently early, arsenic, given internally, appears to act beneficially in causing malignant lymphoma to disappear.

FILARIA SANGUINIS HOMINIS, LYMPHOCELE, LYMPHURIA, AND OTHER ASSOCIATED MORBID DISORDERS;

WITH A HINT OF OTHER WORM-DISEASES IN EGYPT.

By PROSPERO SONSINO, M.D. (Pisa University).

(Continued from page 495.)

I WISH to acknowledge my gratitude to Dr. Vazendorst Bey and Dr. Mackie, of the Diaconess Hospital, Alexandria, as well as to Dr. Zancarol, of the Greek Hospital, for having afforded me opportunities of performing microscopical researches in three of the tabulated cases; and I am grateful also to Dr. Ambron, of this town, who afforded me from his private practice some other cases, and to Dr. Durry, of the Kasr-il-ain Hospital, for the case there observed.

It is fair to remark here that, though I have observed filaria parasitism in five Jews out of a total of ten cases, I could not infer that this parasitism is more frequent in them than in the other natives, as the fact is probably due only to the more frequent occasions that I had of treating Jew patients in Cairo. Be this as it may, of ten cases of filarious individuals I had five associated with lymphuria. So that I am able now to give a general description of this urine disorder, as it has been verified in these five patients.

Symptoms and Characters of Lymphous Urine.—The attack of lymphuria (called commonly *chyluria*) comes generally suddenly while the patient seems in full health. It begins with pain in the loins, and very often with ischuria. After some delay the micturition is performed with great difficulty, and urine is voided presenting the strange character of having the appearance of milk. Sometimes also the white or yellowish-white urine has some reddish or pinkish streaks due to blood. Occasionally, either at first or in the course of the attack, it is entirely bloody. At times it is accompanied by some fibrinous or bloody urethral casts, which the patients think are pieces of flesh. The difficulty of micturition is due to the coagulation of the lymph in the bladder, and it is only when the coagula begin after some hours to be dissolved that micturition becomes possible. Other times, coagulation in the urine takes place only after emission, when the clot takes the form of the containing vessel, and is a tremulous, elastic jelly, which may constitute two-thirds or three-quarters of the total urine. This coagulum becomes afterwards firmer, a portion of the fluid being squeezed out by retraction of fibrin; but after some hours the coagulum is completely dissolved, perhaps through the urine becoming alkaline. The urine voided in the course of the day often offers a brown hue, like milk and coffee, which is due to altered blood, whilst in the morning hours is more like simple milk. The urine sometimes is acid, sometimes alkaline, more often neutral; specific gravity variable, generally from 1012 to 1020. Urine with the above characters may be passed for weeks and months. The lumbar pain often subsides, reappearing occasionally. Generally, patients feel weakened by this drainage of lymph, and after some time become thin and emaciated; but in some cases, as in the third one given, the loss of lymph is well borne. This might be attributed to good hygienic conditions of the patient—in fact, the third case is that of a lady who can afford to live with every comfort.

In the course of an attack of lymphuria there are often remissions in which the urine may present a normal appearance, and, when opaque, may have only a very little coagulum. At last the urine acquires permanently its normal

characters, and the disorder is in abeyance for a more or less period of time.

Lymphuria is generally only an intermittent disorder, with attacks of different duration, and with interruptions of months, and even of years. But the attacks generally return in time. Of the five cases observed by me, the attack only once lasted so long as thirty-two months.

Filaria in the Lymphous Urine.—In the urine of the five patients I constantly found embryonal filariæ in more or less quantity. It is especially in the clots or coagula that these embryos can be discovered with more or less ease. Indeed, it seems that the fibrin when coagulating takes up in its meshes all the embryos, as it is very rare that we find any in the liquid after coagulation. Generally, even if the examination is made soon after emission of the urine, the embryos appear dead; or, if living, their movements are very slow. This is very different to that which I have verified in regard to filariæ in the fluid of lymphocele. I suppose that the ordinary acid urine is favourable to their vitality. Dead embryos present a granulated appearance in the axis, that is not apparent in the living filaria in its full activity. In lymphous urine I found filariæ at all hours when the urine was emitted.

To recognise filariæ in lymphous urine is not so easy as in the blood, generally because they are dead, and also because the fibrillar appearance of fibrin coagulated may lead to mistake, which, however, is not possible with due care and the use of an appropriate focus.

Microscopical and Chemical Characters of the Lymphous Urine.—With the microscopical examination we find the fibrillar appearance due to fibrin. Besides white or lymphatic corpuscles, some epithelial cells of the urinary tract, and more or less red corpuscles altered by urine, as well as a great quantity of very minute granulations of different appearance, which probably are constituted both by proteic and fat matter.

The fluid left by the spontaneous coagulum is coagulable both by heat and by nitric acid. The coagulum by nitric acid has reached sometimes one-third or one-half of the total of the liquid. When lymph is not in large proportion, and the urine is alkaline, heat alone may not yield any coagulum, and to obtain it it is necessary to add a few drops of acetic acid.

The fluid urine mixed with ether becomes presently more transparent, and with time it appears divided into two strata, one offered by the ether that has dissolved fat, and the other by a coagulum of albuminous matter. With chloroform, after some hours we have four strata—the superior one transparent, constituted by pure urine; then a second stratum yellow, like cream (fat); a third constituted by a little brownish coagulum; then the fourth, the more abundant, and quite white, constituted by coagulated albumen.

Therefore there is no doubt that lymphous urine contains fibrin, demonstrated by the spontaneous coagulation, albumen in great quantity, and fatty matter. This latter is certified by the smell of acrolein after evaporating the ether and burning its residue. For this chemical examination I am indebted to Mr. Sickemberger, an apothecary of this town.

A Case of Lymphuria without Filarial Embryos.—There is no doubt, I think, that lymphuria, as well as lymphocele, is originated in Egypt by *Filaria sanguinis*, yet I must say that I observed a most characteristic case of lymphuria in which I could not find filarial embryos, either in the blood taken from the finger, or in the lymphous urine.

The patient was a native mulatto, aged thirty-nine, a shoemaker, whom I first visited in September, 1874, some time after he had been taken by a sudden and severe attack of lymphuria, which at the beginning caused some danger from ischuria. For a period of three months he suffered from lymphuria with intermissions. Then, little by little, the urine returned to its normal characters; and until lately, viz., after seven years, he had not had any further attacks, though he still looks very anæmic, and his blood appears very fluid and discoloured. In the course of these seven years I examined the blood from the finger or the ear from time to time, and never found filaria embryos in it or in the lymphous urine. As the blood examined had in every instance been taken from this patient in the daytime, and sometimes after noon, I doubted whether the periodical absence of the embryos from the blood might not be thus

accounted for. Some days ago, however, I practised a nocturnal examination at 9 p.m., but still I did not find any filaria. So there is no doubt that this subject does not contain embryonal filaria in his blood. Yet the characters of the lymphuria in this case resemble so much the other cases of filarial lymphuria which I observed, that I entertain still the doubt that they have the same and unique origin.

But in what manner may be explained the absence of the embryonal filariæ from the blood of this lymphuric subject? The fact may happen in two ways: either the adult filariæ had come out with the lymph urine before I examined the patient, or the patient was or is the host of adult filariæ of one sex only, so that there is no generation of embryos. That this last condition may occur, no one can deny; and if the origin of lymphuria, or of other disorders, is due, as is most probable, to the adult worm or worms, and not to the embryos, we can have lymphuria or other ailments from filariæ without having any embryo in the body. I know that this is a mere hypothesis, but it is not at all an unlikely one.

Diseases caused by Filaria Presence, and in what Manner.—All the filarious individuals not being subject to lymphuria or lymphocele, we may argue that these morbid disorders are not the necessary effects of the presence of filaria embryos circulating in the blood, but are rather due to the presence of the adult worm in certain parts of the lymphatic system which are in relation with the organs in which lymphorrhagia must take place, in order to result in lymphuria or lymphocele.

The theory generally admitted of the mechanical obstruction caused by the adult worm in the lymphatic channels, with all its consequences, as lymphangitis, lymphatic dilata-tions, rupture, and consequent lymph extravasation or external lymphorrhagia, seems to me the more likely to explain all the morbid disorders or diseases which have been found associated with the worm, and may be originated by it, as lymphuria, lymphocele observed by myself, and other complaints observed by others in other countries. My experience till now speaks only positively about lymphuria and lymphocele. I had not yet had cases either of the so-called *lymph-scrutum*, or of the *Helminthoma elastica* as called by Bancroft. Of elephantiasis, it is true, I had a case in a filarious subject. But, on the other side, I must say that I had five cases of ordinary elephantiasis Arabum without finding filaria embryos. Of these five cases of elephantiasis, three were of the leg, one of the scrotum, and one of the arm, this last in a female nurse at Kasr-el-ain Hospital. In all these cases I did not examine only the blood from the finger, but as well as the blood, or rather the fluid, obtained by piercing the diseased part. Thus, as far as my experience goes, I must argue that ordinary elephantiasis Arabum may be found without association of filaria embryos. Yet I cannot be sure that that disease has any relation with the filarial parasitism, inasmuch we are dealing with a fact too complicated, as are all the facts about pathogenetic relations. Indeed, I am not prepared to oppose Manson's hypothesis, that in case of elephantiasis in which there is not the actual presence of filaria embryos, still the worm, or worms, may have existed at the beginning of the disease, and have been the origin of the elephantiac process, which, once begun, may have continued, after the disappearance of the worm, only from the persisting alterations set in the lymphatic vessels. I will add that the eventual existence in some subjects of worms of one sex only may be the cause of cases of elephantiasis without embryos.

I will not, however, conclude about the positive or negative relation between filaria and elephantiasis, and much less about the relation of filaria with other diseases I have never seen, as *craw-craw*, which I do not know if ever exist in this country, whilst it is sure that it ought to exist if it were really the consequence of *Filaria Bancrofti*.

For leprosy I will say only that in a single case of this disease in which I had opportunity to make research for filariæ the result was negative. It was a case of *lepra leontina*, observed at Lagazig in 1876.

But before I close this subject I cannot help observing that we are not authorised to infer by the simple association of a disease with the filarial parasitism that the disease is originated by the worm. If *Filaria sanguinis* is so common in certain countries, as it seems to be the case in Amoy—where, according to Manson, one in ten of the inhabitants have filariæ in their blood,—it is doubtless that many and

many diseases must occur in filarious subjects by simple coincidence. Therefore I think we must bear in mind Sir Joseph Fayrer's warning, that "it is necessary to be careful, lest in the enthusiasm of a new discovery too universal application be made of it, and more ascribed to it than is its due." (a)

It is true that there are subjects who are infested by this worm without offering any grave apparent disorder, as in two of my cases. Yet the presence of it in the human body may be considered as a serious contingency. For we can presume that as it happens that the worm comes out from the body through a superficial glandular abscess, it may sometimes find the way through important organs, causing there either abscesses or thrombosis or embolism, and give rise to serious and even mortal accidents. Thus we ought to look at the worm as a dangerous parasite, which threatens continually the life of the bearer.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LIVERPOOL ROYAL INFIRMARY.

SERIES OF HERNIA CASES.

(Under the care of Mr. RUSHTON PARKER.)

(Continued from page 381.)

Case 6.—Prophylactic Herniotomy for Radical Cure— Imperfect Method, but Complete Cure.

ROBERT C., aged twenty-eight, a joiner, admitted June, 1879. A fluid collection, not unlike a hydrocele of the cord, was tapped on admission and once previously, but not followed by disappearance of all the swelling on either occasion. What remained was soft and quite irreducible up the inguinal canal, though not having an unequivocal neck or other local characters clearly suggestive of a hernia. But, on the grounds of probability and exclusion, it was nevertheless presumed to be an omental hernia with a narrow pedicle, and its attempted cure by operation was decided on, and performed under Lister's arrangements on June 20, 1879. The diagnosis was verified on opening the sac, where lay much adherent omentum, of which the pedicle was tied in several places with stout carbolised silk, and reduced after severing and removing what lay beyond. The sac was detached, folded up, and stitched in the inguinal canal, and the wound closed by sutures. To avoid further detail, it may be added that eventually sound healing occurred, though not until after suppuration up the cord and the formation of an acute abscess in the iliac fossa. The patient never wore a truss after, and never experienced or manifested any further hernial protrusion. More than a year later he had on the same side a hydrocele, which was tapped and injected with strong iodine liniment, resulting in the usual acute inflammation, effusion, and re-absorption. On December 1, 1881, he was well and strong, without a sign of hernial protrusion or appearance of liability.

Case 7.—Prophylactic Herniotomy for Radical Cure— Imperfect Method and only Imperfect Result.

John M., aged twenty-four; had a left inguinal hernia at the age of two, wore a truss, and eventually dispensed with it. In 1870 the hernia came down, and had existed ever since, though always reducible until a week before his admission on October 1, 1880. Ever since the hernia became irreducible he had had pain and general local discomfort, but no interference with the functions of the bowel. Rest in bed was followed by speedy and complete relief of all discomfort, but the hernia remained as a scrotal and inguinal tumour, and was known to have resisted repeated efforts at taxis before admission. On October 8 herniotomy was performed somewhat as in Case 6. The omental protrusion, being too large for reduction without widening the neck of the sac,

was tied in several places with stout carbolised catgut, and the stump reduced after cutting off the portion beyond. The sac was folded up, tied, and also reduced. Catgut drain was used, sutures put in, and carbolised gauze dressings applied, with Lister's precautions. But the same unsatisfactory incidents in the after-treatment occurred as in the previous case—namely, retention of discharge, extra-inflammation, suppuration, and decomposition, with iliac abscess; though in neither case was it made out at the time in what way the probable error had been made. In this case, too, healing eventually resulted, and for a time he went about and worked as a baker without return of the hernia. But early in May, 1881, the rupture reappeared, and he allowed it to protrude for a fortnight before reporting the fact. A truss was applied, and has acted well. He was seen well in March, 1882, wearing the truss, and failing to show a hernia when standing and coughing without it.

Remarks.—Case 6 was from the first considered unsatisfactory, in spite of the perfectly successful result, on account of the faulty progress of the wound, and the consequent hazard to the patient, though no dangerous symptoms were encountered. Case 7 was still more so, and further proved, besides, that no uniform confidence could be placed in a mere tucking-in and sewing of the protruded sac as a means of occlusion. This had, in fact, long ago been made known; but the simpler method of tying the sac high up had been seen to be incompatible with attempts (now known to be generally unnecessary) to provide for drainage from the peritoneum. The two cases, however, have both been really acceptable to the patients, and are of this value, that they represent one of the steps by which the operation of radical herniotomy has been so vastly improved in utility and safety.

Case 8.—Prophylactic Operation for Radical-Cure Treatment of Irreducible Femoral Hernia—Ligature of Neck of the Sac and Omental Pedicle together—Complete Cure.

Mary A., aged forty-five, a strong working-woman, having a right omental femoral hernia the size of a hen's egg. Herniotomy was performed on January 4, 1881, under all Lister's precautions; the sac opened, and a very narrow neck and omental pedicle found. These were both ligatured together outside the sac with carbolised catgut as high up as possible, and the parts below cut off. Catgut sutures and drain were put in, and gauze dressings applied. On the tenth day these were changed, and the knots of the sutures and the protruding ends of the drain found lying loose. A small amount of granulating surface healed in the next three days. No truss was worn, and after a few weeks' rest the patient went about as usual. On December 1, 1881, she was well, and quite free from hernial protrusion.

Case 9.—Incarcerated Omental Femoral Hernia—Ligature of Sac alone, after Reduction of Omentum by Taxis—Complete Cure.

Sarah R., aged fifty, admitted March 29, 1881; had had a small left femoral hernia two years, unsupported by a truss, but reducible. For the two previous days the hernia had been down, no stool had passed, and vomiting had come on with pain. Wind had passed, however; and this fact, and the evident purely omental character of the protrusion, were duly appreciated, on her admission, by Mr. Meeson, the House-Surgeon, as excluding the likelihood of strangulation, though he sent for assistance on account of the somewhat equivocal symptoms, and at the same time refrained from taxis. The hernia was evidently omental, and apparently reducible. The belly was undistended, and the bowel symptoms slight, so under ether Mr. Parker reduced the hernia easily. Seeing, however, that at any time the incident might be repeated, with even intestinal accompaniments of severity or danger, herniotomy was at once decided upon for the purpose of radical cure. The empty sac was opened, separated, and then tied tightly and high up with carbolised catgut, being cut off beyond. Two or three dressings sufficed, with catgut drain and sutures, resulting in speedy and simple healing, without further illness. The patient was in her usual health on December 1, 1881, but, being habitually bronchitic, was not robust; the hernia, however, showing no sign of existence or tendency to reappear, though she had been up and about without a truss within a month of the operation.

(a) "On the Relation of *Filaria Sanguinis Hominis* to the Endemic Diseases of India," by Sir Joseph Fayrer, M.D. (reprinted from the *Medical Times and Gazette*, 1879), page 18.

(To be concluded.)

(a) We notice a discrepancy between the general statement on page 16 of the report and the detailed one on page 17. According to the latter, there were 84 ovariectomies, 74 recoveries, and 10 deaths; but according to the former, 75 recoveries and 9 deaths. The more detailed a count seems to us the more likely to be accurate, and therefore we adopt it.

satisfy us. We repeat, that the *onus probandi* is on those who seek to explain away the unquestionable fact of the deaths. And even if the explanation of these five cases be entirely accepted, the non-antiseptic death-rate still remains more than double that following antiseptic operations. We hope—we have no doubt—that the staff of the Samaritan Hospital will, as they have done in the past, thoroughly search out and make public the causes which have governed their mortality; and that this Hospital will not, in its next report, have to record a retrogression.

TWO VIEWS OF BACTERIA IN DISEASE.

THERE are those who become soon wearied of bacterial pathology, just as some people are unable to stand much metaphysics. But the significance of bacteria in disease has to be settled somehow; and that settlement will be delayed just as much by obstinate indifference to facts as by precipitate acceptance of everything that is vouched for, in the *Times* or elsewhere, by some one or other of the day's distinguished names. The incredulous who looked at Dr. Koch's tubercle preparations the other day at King's College will at any rate admit that bacilli were there, and they will perhaps begin to ask themselves what the presence of organisms in the tissues may mean. The friends of bacterial pathology, having got over their first feeling of admiration for the neatness of the result, will perhaps also begin to ask themselves whether there are no alternative hypotheses. It is well known to barristers practising in criminal courts that a jury, trying a case of murder, is greatly helped towards a verdict of conviction by having the murderous chopper handed round among them. The counsel points to it with a certain air of conclusiveness. "Gentleman of the jury," he says, "I put into your hands the identical chopper; take a good look at it, and tell me whether you can doubt any longer." As there may be more than one story told of the chopper, so may there be various associated circumstances for the bacillus. While we await from Dr. Koch the many interesting details that are wanting to make his account of tubercular bacilli isolated by dry culture read smoothly, it may not be unprofitable to occupy the interval with a brief statement of the positions taken up by two different schools of bacterial pathology.

The school to which Dr. Koch belongs is represented among the botanists by Professor Cohn, of Breslau. They maintain that each specific disease is caused by a botanically specific bacillus. The bacilli of disease are distinguished from one another no less by morphological than by functional characters; even if it be in nothing but their reaction with the aniline dyes, Dr. Koch will still find distinctive characters for them. From that extreme position Pasteur has lately withdrawn; he gives up morphological specificity, but he clings to specificity of function. He found in the body of a child, which had died of hydrophobia, a certain organism; he cultivated it, and it changed its form; but, notwithstanding the change of form, the inoculated culture produced hydrophobia in an animal. Sameness of form is, therefore, unessential. What is essential is uniformity of function, or the power to produce always the same disease. Pasteur has thus been led by circumstances to approximate his view to that of the other school, which is represented among the botanists by Professor Nägeli. They are satisfied that the virus of a disease often goes with the bacteria; that it is difficult, if not impossible, to separate it from the bacteria; in short, that the bacteria have become "adapted" or intimately changed for the occasion by their contact with the virus. Nägeli, who has written a book on the subject, uses the word "adaptation" (*Anpassung*) in its natural-history sense; the fungus takes up a certain specific virulence from

its environment, a virulence which not merely clings to it externally, but enters intimately into its composition. But the specific virulence is originally foreign to the fungus, and the presence of the fungus may be unessential to an act of infection. That view was maintained in the Pathological Section of the recent International Medical Congress by Professor Fokker, of Gröningen, who has just published some additional observations and criticisms ("Zur Bakterienfrage," *Virchow's Archiv*, April, 1882). One of his experiments on splenic fever was as follows. With long threads of the *Bacillus anthracis* cultivated in blood-serum, he inoculated a mouse, which died on the fourth day, no bacilli being found in its blood or in any of its tissues. From that mouse thirty other inoculations of mice were made in succession, the one from the other; all the mice died in two or three (seldom more) days. Only in the twenty-second mouse of the series were any bacilli found; they were present, not distinguishable from the bacilli of anthrax, in enormous numbers in the liver and spleen, and in the blood. But the twenty-third mouse, inoculated with these same bacilli, died in due course, and showed no rods in its body. When Professor Fokker read Dr. Koch's latest observations on anthrax, he found them so different in purport from his own that he doubted if he could have used the same virus. He accordingly obtained from Dr. Koch a few silk threads impregnated with anthrax spores, and very virulent. Nine mice inoculated therefrom all died in from one to three days; of these, two contained numerous rods, four a few rods, and three no rods at all. Professor Fokker, who is evidently a humourist, suggests that perhaps his mice were at fault; that the mice of Holland are not the same for such purposes as the mice of Germany. Further, in certain healthy Dutch mice, he found bacilli in the tissues the same as those of anthrax; but no effect followed their inoculation. In that respect he thinks English mice must be the same as those of his own country, for Lewis found bacilli in the mouse in the state of health, and even got the rods to grow into long threads and to form spores in aqueous humour. He thinks that the argument for the specificity of bacilli drawn from splenic fever and septicæmia moves in a vicious circle. There is a want of definite characters in those diseases—so much so, that some have rested their diagnosis upon the presence or absence of the appropriate bacilli. He hopes, however, in the case of another and more definite disease, also reputed to be due to a specific fungus, to be able to show that the specificity of the fungus is a myth (*Aberglaube*).

We have no wish to conceal a strong bias for that hypothesis of pathogenic bacteria, as against the hypothesis that certain species in botany represent the species of disease. That hypothesis is one that takes due account of the separate existence of animal poisons. While it admits micro-organisms to play a certain part in the propagation of infective diseases, it still leaves to pathology all those old problems of the specific diseases which the medical profession is not unnaturally reluctant to hand over entirely to the botanists. Even if we should have to accept the whole of Dr. Koch's tubercle experiments as without flaw, it is still open to us to say, with Nägeli, that the bacilli are common bacilli, which have become adapted by living upon, or in the midst of, specific animal matters. So long as pathologists are left with specific animal matters, their occupation can hardly be said to be gone. How tubercle first began, and how in many cases it still originates *de novo*, are questions that still remain to us. And we venture to think that they will still remain to us, to stir the ardour and to tax the best thought of the profession, when the specific parasite of tubercle has been relegated to that limbo, or fool's paradise, to which the great Puritan poet

consigned all "relics, beads, indulgences, dispenses, pardons, bulls"—all short and easy ways of dealing with matters whose more profound aspects must, in the last resort, be fully and fairly faced.

THE REGISTRAR-GENERAL OF ENGLAND'S RETURN FOR THE FIRST QUARTER OF 1882.

THE resident population of the United Kingdom in the middle of 1882 is estimated at 35,280,299 persons; that of England and Wales at 26,406,820, of Scotland at 3,785,400, and of Ireland at 5,088,079. The births registered in England and Wales during the three months ending March last were 223,802, being 1986 fewer than in the corresponding quarter of last year. The annual birth-rate was 34·4 per 1000 of the estimated population; being lower than in the first quarter of any year since 1850, when a larger number of births escaped registration than is the case now. During the quarter 140,304 deaths were registered in England and Wales, being equal to an annual rate of 21·6 per 1000 of the estimated population for the middle of this year. This death-rate corresponds with the low rate that prevailed in the corresponding quarter of 1881; was 1·8 below the average rate in the first quarter of the ten years 1872-81; and no lower death-rate has been recorded in the first quarter of any year since civil registration was established in 1837—a result due, in great measure, to the exceptional mildness of the past winter. Exclusive of London and its Outer Ring of suburban districts, in which the rate of mortality was exceptionally raised by the fatal effects of dense fogs in the early part of the quarter, and the epidemic prevalence of whooping-cough, the general death-rate of England and Wales was markedly lower last quarter than in the first quarter of 1881. The rate in the several English counties ranged from 16·0 and 16·1 in Huntingdonshire and Westmoreland, to 24·1 and 24·5 in Lancashire and Monmouthshire. The 140,324 deaths in England and Wales included 71,871 of males, and 68,453 of females. In equal number living, the deaths were 111 of males to 100 of females; this proportion corresponding with that which prevailed in the first quarter of last year.

In the registration districts and sub-districts comprising the chief towns, and containing an estimated population of fifteen and a half millions of persons, the death-rate was equal to 23·2 per 1000; in the remaining, and chiefly rural, population of about ten and a half millions, the rate did not exceed 19·1. These urban and rural rates were respectively 1·7 and 2·4 below the average rates in the ten preceding corresponding quarters. In twenty-eight of the largest English towns, including London, and having an estimated population of eight and a half millions of persons, the death-rate was equal to 24·7 per 1000; and was 1·5 above the general urban rate. In London the death-rate was equal to 25·6, while the average rate in the twenty-seven provincial towns did not exceed 23·9. The lowest rates among the provincial towns were 19·3 and 20·0 in Leicester and Halifax; and in the other towns the rates ranged upwards to 28·7 in Preston, 28·9 in Blackburn, and 29·2 in Brighton.

The total of deaths during the quarter included 32,600 of infants under one year of age, 71,262 of children and adults aged between one and sixty years, and 36,462 of persons aged upwards of sixty years. The rate of infant mortality, measured by the proportion of deaths under one year to births registered, was equal to 146 per 1000; the average rate of the ten preceding corresponding quarters having been 148 per 1000. The annual rate of mortality among persons aged between one and sixty years was equal to 12·2 per 1000 persons estimated to be living at those ages, against an average of 13·0 in the ten preceding corresponding

quarters. In the twenty-eight large towns the death-rate at these ages averaged 15·2 per 1000, and ranged from 9·6 and 11·0 in Leicester and Halifax, to 18·2 in Manchester, 18·4 in Liverpool, and 18·8 in Brighton. Among persons aged above sixty years the annual death-rate averaged 74·9 per 1000. This was 11·9 below the mean rate at these ages in the ten preceding corresponding or winter quarters, and lower than that recorded in the first quarter of any of the twelve years 1870-1881. In the twenty-eight towns the death-rate at these ages averaged 86·1 per 1000. In London it was equal to 91·8; whereas in the twenty-seven provincial towns it did not average more than 80·6. In some provincial towns, as in Nottingham and Hull, it was as low as 65·2 and 67·1; but in others the rate of mortality was higher than in London, having reached 93·8 in Halifax, and 100·4 in Wolverhampton.

The total number of deaths attributed to zymotic diseases was 17,011, corresponding to an annual rate of 2·61 per 1000, against an average rate of 2·75 in the ten preceding first quarters. In the twenty-eight great towns the zymotic rate averaged 3·76, ranging from 1·34 in Halifax to 8·17 in Brighton. The deaths from whooping-cough numbered 4973, corresponding to an annual rate of 0·76 per 1000, representing a mortality considerably above the average. In the twenty-eight great towns the rate was 1·47, and ranged from 0·05 in Halifax and 0·08 in Blackburn to 2·29 in London and 2·89 in Brighton. The mortality from measles was also considerably in excess of the average, while the deaths from scarlet fever, and those ascribed to fever, were for each equal to annual rates below the average for the ten preceding first quarters. The mortality from diphtheria was rather above the average. The deaths from small-pox were 533, corresponding to an annual rate of 0·08 per 1000, against an average of 0·23 for the ten preceding corresponding quarters. Of the 533 deaths, 212 occurred in Registration London, and 50 in the Outer Ring, leaving 271 for the rest of England and Wales. The Registrar-General observes that while the disease has been gradually declining in London and its immediate neighbourhood for past quarters, it has been simultaneously increasing in the rest of England and Wales; though the mortality from small-pox is even now four times as high in Greater London than in the rest of the country. The most considerable outbreaks of the disease away from London during the quarter were in Rochdale, where 34 deaths occurred from it; in Ampthill, where the deaths were 19; and in Bedlington, where the deaths were 22—corresponding to death-rates very largely exceeding that which prevailed in London.

As to the meteorology of the quarter, the mean reading of the barometer was 30·03 inches, and was more than a quarter of an inch above the mean reading for the corresponding period in forty years; and the mean exceeded the average in each month of the quarter. The weather was unseasonably mild throughout the quarter, excepting only during two moderately cold periods—from January 17 to 26, and the first ten days in February. The mean daily excess of temperature during the first sixteen days of January was 6·6°; and during the warm period of forty-nine days from February 11 to the end of March the average daily excess was 5·3°. The mean temperature of the air in the quarter was 42·7°, and exceeded by 4° the average for the corresponding period in 111 years. Only four times in the same period of years has the mean temperature of the first quarter been so high as the mean recorded this year. The amount of rain measured at Greenwich during the quarter was 3·63 inches, being nearly an inch and a half below the average amount in the corresponding periods of sixty-six years, and showed a deficiency of about half an inch in each of the months of the quarter. Rain was measured at Greenwich

on twenty-nine of the ninety days of the quarter. The number of hours of bright sunshine recorded at Greenwich was 179·7, against 172·0, the average amount recorded in the corresponding quarters of the four years 1878-81.

THE WEEK.

TOPICS OF THE DAY.

THE thirty-seventh anniversary dinner of the German Hospital at Dalston was recently celebrated at Willis's Rooms, under the presidency of His Royal Highness the Duke of Cambridge (who is President of the charity), supported by several representatives accredited to this country from foreign courts. Like almost all hospitals, this one is in urgent need of funds to carry on the charity; and this though the Hospital contains only 125 beds—a number certainly not above the requirements of the institution. During the past twelvemonth it was stated, besides many thousands of out-patients, 1672 in-patients had been treated, the latter including forty-eight who were admitted into the "sanatorium," the private rooms set apart for the reception of patients of a better class on payment of a small, regulated tariff. The receipts during 1881 had been £9297, and the expenditure £8628. The benefits of the Hospital were not exclusively set apart for foreigners, as nearly half the patients admitted during the past year were natives of this country—a fact which justified the Committee in making a general appeal for assistance. In the course of the evening the Secretary announced donations and subscriptions amounting to £4372, including £20 from the Chairman, £200 from the Emperor of Germany, and £50 from the Emperor of Austria.

At a meeting of the Court of Common Council held at the Guildhall last week, the Lord Mayor in the chair, the present condition of the river Thames was brought forward for consideration. A letter from the Board of Works was read, amidst some dissent, stating that, in their opinion, the pollution of the river was not so excessive as to cause a serious nuisance or an injury to the public health, and pointing out that there were other sources of pollution which ought to be considered besides the metropolitan sewage. Mr. Felton, the Chairman of the Commissioners of Sewers, and Mr. Innes deprecated the state of affairs at present existing; while Mr. Dresser Rogers defended the action of the Metropolitan Board of Works. Ultimately the powers asked for by the Committee were granted, and it was decided that a further inquiry should be instituted.

Dr. B. W. Richardson has again been discoursing on the subject of domestic sanitation before the members of the Ladies' Sanitary Association; and has treated of the kitchen and the school-room. The kitchen, he insists, should be freely supplied with light and fresh air; and, as on former occasions, he predicted that a future and more enlightened day will see the kitchen altogether removed from the basement of the house. He will allow no sinks in the kitchen, as these are always a source of danger. Somewhat similar directions were given in respect to the scullery, and some advice was given touching the larder. Turning then to the subject of the school-room and school work, he urged that in childhood recreation should take the place of education, which should be made, in fact, a recreation. In childhood all recreative exercises should be as free as the air. Even in close towns the children who roam the streets and alleys and slums have better health, he said, than those who are kept in a close nursery or parlour. If they compared, in such a place as London, the street children with the children of the squares, they saw a comparison which was not unfavourable to the former; but if they

compared both these classes with the children of shopkeepers, who were too respectable to be turned into the street, and too poor to find a playground in the squares, they saw how striking was the contrast—how strong and well the outdoor urchins were, rich and poor, by the side of those who pined indoors, or found their longest stroll from home to school and from school to home again. The dearest thing in the market, Dr. Richardson observed, was health, without which, learning, be it ever so cheap, was bought at a sacrifice.

At a meeting of the Committee of the non-Roman Catholic Cemetery at Cannes, held on April 24 last, the following facts were elicited, which are sufficiently remarkable as contrasted with the reports of the mortality at Cannes which have been so prevalent in England. During the season now practically ended there, there have been, it is said, but six funerals in the three Anglican churches. The Cemetery Committee believe that only three other English have died in Cannes. Of the deaths, four were from typhoid fever; and of these, one undoubtedly, and another not improbably, were, it is asserted, cases of fever contracted elsewhere. From other diseases, and especially those of a pulmonary character, there has been a remarkable freedom. Lastly, in the above cemetery there have been but six interments in freehold graves, instead of, as usual, seventeen or more. The above facts are attested by the signatures of the chaplains of the three Anglican churches at Cannes. Imperfect sewerage and drainage may, however, be highly injurious to health without destroying life.

Recently, at the rooms of the Society of Arts, Mr. Spencer Walpole, late Chief Inspector of Salmon Fisheries, read a paper on "The Fish Supply of London"; Mr. Birkbeck, M.P., presiding. In his address Mr. Walpole explained that as much food was brought into London by fishermen as would be represented by a thousand oxen driven in on every day of the year. It was alleged that the North Sea, which is our chief fishing-ground, has been over-fished; but this he did not believe, because it had been shown that the fisheries of this country would outlast the lives of any of those now living, though the quantity of land-borne fish supplied to London was less by 75 per cent. than was conveyed to London by water. As far as the fish supply of London was concerned, he thought there could be no doubt that it was most advantageous to the country that the source of supply should be concentrated in one market, and that that market should be on the water-side. As far as the site of this one market was concerned, he was not sure that Billingsgate was the best; but he feared that, unless large alterations were effected, no better arrangement could be made. He thought what was wanted, in order to bring about a reasonable reduction in the price of the fish supply for consumption in London, was a central fish-market in London, situate on the river-side. The chairman, in commenting on Mr. Walpole's remarks, said that he, as an agriculturist in the Eastern Counties, used as manure large quantities of fish, which but for the high charges of the railway carriers would be conveyed to the large centres of population, and used as food.

The monthly return of the Registrar-General for Scotland for March last shows that in the eight principal towns the births of 3916 children and the deaths of 2333 persons were registered during the period. Allowance being made for increase of population, the latter number is 592 under the March average for the past ten years. During the month under notice, the mortality was at the annual rate of 17 deaths per thousand persons in Leith, 19 in Dundee, 20 in Edinburgh, 21 in Aberdeen, 23 in Greenock, and 26 in Glasgow, in Paisley, and in Perth. Of the 2333

deaths, 1001 (or 43 per cent.) were those of children under five years of age, divided amongst the different towns as follows:—Dundee, 36 per cent.; Leith, 38; Aberdeen, 39; Edinburgh, 40; Paisley, 41; Perth, 42; Greenock, 43; and Glasgow, 47. The miasmatic order of the zymotic class of diseases proved fatal to 327 persons, and constituted 14 per cent. of the whole mortality. In Paisley, however, the deaths from miasmatic diseases amounted to 20·5, and in Perth to 33·8 per cent. of the whole. Whooping-cough proved the most fatal epidemic, having caused ninety-five deaths, or 4·1 per cent. of the whole mortality. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 497, or 21·3 per cent. Those from consumption alone numbered 297, or 12·7 per cent. One male and four females had reached the age of ninety years and upwards, the eldest, the male, who had formerly been a mason, having died at ninety-three years of age.

The monthly meeting of the North-Western Association of Medical Officers of Health was held last week at the office of the Secretary, King-street, Manchester; Dr. Hughes, Medical Officer of Health, Ashton-under-Lyme, president of the Association, presiding. A letter was read from Dr. J. M. Wilson, Hon. Sec. of the Yorkshire Association, with reference to a joint meeting at Doncaster. It stated that June 30 had been selected as the day for the meeting, and that it was proposed that a visit to the sewage farm there should form part of the programme. The subject suggested for discussion was "Sewage Disposal," and papers would be asked for, dealing with the question from the householder's standpoint, as well as with the duty of local authorities. Further details were left to be settled by the presidents and secretaries of the Associations. A letter was also read from Dr. Armstrong, Hon. Sec. of the Northern Counties Association, referring to the proposed joint memorial of the Associations with reference to the supply of the official reports of the Local Government Board, and stating that his Association would sign the memorial. Dr. Vacher exhibited to the meeting a portable air-impurities extractor upon which he had improved, and which is specially applicable for the collection of specimens of the air in the wards of hospitals, in over-crowded dwellings, and in sick-rooms.

An International Hygienic Congress is announced to be held at Geneva in September next, and all arrangements are placed in the hands of Dr. Louis Dunant. Medical men of all countries, and all who have the advancement of hygienic science at heart, will be eligible to attend the sittings, provided they send in their names beforehand.

THE ADMINISTRATION OF THE METROPOLITAN HOSPITALS.

It would appear that some time since the Council of the Social Science Association applied to the Home Secretary to receive a deputation to urge the prayer of a memorial that Her Majesty might be pleased to issue a Royal Commission to inquire into the management and administration of hospitals. Sir William Harcourt, however, very naturally and wisely, expressed a wish to have the "desires and suggestions of the Council" conveyed to him in writing instead of by deputation. The Association has, therefore, forwarded to the Home Office a "memorial and memorandum" which were adopted by the Council on the recommendation of a special committee previously appointed. Apparently the memorial is only the embodiment of the views of the Association on this subject, which have frequently been ventilated; for instance, it sets forth that "the hospital accommodation of London is imperfectly distributed, and, in many districts, altogether inadequate"; that "the want of organisation and co-operation among the medical institutions of the

metropolis materially lessens their usefulness, and leads to unnecessary expense"; that "the present system of indiscriminate relief injuriously affects the independence and self-reliance of those who are able to meet, in some degree at least, the cost of medical and surgical treatment"; that the funds at present available for the proper maintenance of nearly all the existing institutions; and so on. The founders of these charities can, however, scarcely be held responsible for the rapid growth of the metropolis, and it is difficult to understand by what arrangement these institutions could be transplanted to meet the wants of the different outlying suburbs. When the general stagnation at present existing in home legislation is taken into consideration, we think that the Home Secretary will hardly agree with the memorialists that "a favourable time has now come" to consider the question of the administration of the metropolitan hospitals.

INTERNATIONAL MEDICAL CONGRESS.

THE Executive Committee held their final meeting on the 15th inst.; Sir J. Risdon Bennett, F.R.S., in the chair. The Treasurer presented the balance-sheet of receipts and expenditure, signed by the auditors, Dr. Pitman and Professor John Marshall, F.R.S., from which it appeared that about £9030 had been received, and £8730 expended, leaving a balance in hand of £300, which the Committee directed to be handed over to Dr. S. Wilks, F.R.S., Treasurer of the Association for the Advancement of Medicine by Research. The Treasurer stated that 3180 entrance-fees had been paid, amounting to nearly £3300, besides subscriptions from 1105 persons, amounting to more than £5700. Twelve hundred pounds which had been promised as a guarantee fund, in case of need, by 126 subscribers, had not required to be called upon. It may be added that the volume of Abstracts prepared for use at the sitting of the Congress, and the four volumes of Transactions published after an interval of less than five months, a copy of which has been presented to every member, cost about one-half the whole amount received. The meeting terminated by the passing of a cordial vote of thanks to the Honorary Treasurer, Mr. Bowman, F.R.S., and the Hon. Secretary-General, Sir W. Mac Cormac.

THE PHOENIX PARK ASSASSINATIONS.

ALL the public bodies connected with the profession in Dublin have held meetings and passed resolutions on the subject of the Phoenix Park murders. At a special meeting of the King and Queen's College of Physicians, held on Tuesday, May 9, the following resolution was unanimously adopted, on the motion of the Vice-President (Dr. J. W. Moore), seconded by Dr. Henry Kennedy:—"That the College take this, the earliest, opportunity of expressing their horror and indignation at the barbarous assassination of Lord Frederick Cavendish and Mr. Thomas Henry Burke, and offer their sincere sympathy to Lady Frederick Cavendish and Miss Burke, and the other relatives of the deceased Chief Secretary and Under Secretary, in this hour of their terrible bereavement." A special meeting of the Council and Fellows at large of the Royal College of Surgeons in Ireland was held on Thursday, May 11, when the Vice-President of the College (Dr. Barton) moved, and Dr. Rawdon Macnamara seconded, the following resolution, which was carried unanimously:—"Resolved—That the President, Vice-President, Council, and Fellows of the Royal College of Surgeons do record their deep horror and indignation at the atrocious murders of the Chief Secretary for Ireland, Lord Frederick Cavendish, and the Under Secretary, Mr. Thomas H. Burke. That this College, while expressing unanimously its abhorrence of an act so inhuman, also declares its loyal devotion to the throne

and Government of Her Majesty the Queen, against which this outrage was directed; and earnestly trusts that the efforts to restore peace and order to this country, and to vindicate the authority of the law against the perpetrators of this crime, may prove successful. That the College expresses its warmest sympathy with the bereaved families of the gentlemen thus suddenly cut off in the performance of their duty, and records its conviction of the severe loss which the country has sustained by the foul crime of which they were the victims." Similar resolutions have also been passed unanimously at special meetings by the Governor and Council of the Apothecaries' Hall, Dublin, and by the Council of the Pharmaceutical Society of Ireland.

KOCH'S TUBERCULAR BACILLI.

At the request of the President, Mr. Watson Cheyne and Mr. E. M. Nelson will, at the close of the next meeting of the Royal Medical and Chirurgical Society, on Tuesday, May 23, exhibit Dr. Koch's specimens of the bacilli of tubercle, and other pathogenic bacteria.

THE METROPOLITAN WATER-SUPPLY FOR THE MONTH OF MARCH LAST.

The report of the Water Examiners for the month of February last showed some slight improvement in the quality of the water supplied for the use of the metropolis by the different companies; but, unfortunately, it does not appear that this satisfactory condition of affairs was maintained during the succeeding month, as the following extracts will show. Colonel Bolton, in his report on the condition of the water previous to filtration, says the state of the water in the Thames at Hampton, Molesey, and Sunbury (where the intakes of so many of the metropolitan companies are situated) was bad in quality from March 1 to 7, when it slightly improved, and became good on the 13th, in which condition it remained for the rest of the month. The water in the river Lea, however, was in a bad condition throughout the whole of the month. In dealing with the merits of the different supplies after filtration, Dr. Frankland reports that the Thames water supplied by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies was, with the single exception of that of the Grand Junction Company, inferior in quality to that sent out during the preceding month. The filtration was also inefficient, the Chelsea Company's sample being the only one that was clear and bright, whilst those of the other companies were slightly turbid. The water from the river Lea delivered by the New River and East London Companies also showed a slight deterioration in quality; but both these waters were sent out in an efficiently filtered condition. It would appear that, gradually, the whole of the companies are extending the constant supply system in their several districts, under the provisions of the Metropolis Water Act, 1871; and there is no doubt that, were the public to take more interest in the subject, the intermittent supply would be much more quickly superseded.

THE ANNUAL DINNER OF THE PHARMACEUTICAL SOCIETY.

The annual meeting of the Pharmaceutical Society has been this week celebrated by two events. Their dinner, which was this year held at the Freemasons', was just as good as we have known it to be bad; the speaking was fairly good, and the toasts not too many in number. Everything went off without a hitch. The *conversazione* at South Kensington on Wednesday evening was, as usual, fully attended. With regard to the present position of pharmacy and pharmacists we may have a word to say again.

THE PARIS WEEKLY RETURN.

The number of deaths for the eighteenth week of 1882, terminating May 4, was 1177 (633 males and 544 females), and among these there were from typhoid fever 37, small-pox 25, measles 38, scarlatina 4, pertussis 1, diphtheria and croup 52, erysipelas 6, and puerperal infections 10. There were also 61 deaths from acute and tubercular meningitis, 219 from phthisis, 32 from acute bronchitis, 93 from pneumonia, 76 from infantile athrepsia (28 of the children having been partially or wholly suckled), and 33 violent deaths (24 males and 9 females). The number of deaths registered this week is less than that of any of the four preceding weeks. The deaths from typhoid have since last week diminished from 44 to 37, from diphtheria from 69 to 52, and from erysipelas from 15 to 6. The deaths from small-pox have increased from 19 to 25. In the hospitals there have been received 69 cases of small-pox in place of 76 last week; 60 of typhoid fever, instead of 88; and 36 of diphtheria, instead of 45. The number of deaths registered (1177) is the smallest in any week of the present year. Diseases of the cerebro-spinal apparatus, from which the deaths have diminished from 113 to 81, and those of the respiratory organs, which have diminished this week by 76, have been the chief causes of this lessened mortality. Most of the epidemic diseases have participated in the improvement. The number of births amounted to 1144, viz., 591 males (436 legitimate and 155 illegitimate) and 553 females (391 legitimate and 162 illegitimate): 114 infants were either born dead or died within twenty-four hours, viz., 61 males (40 legitimate and 21 illegitimate) and 53 females (34 legitimate and 19 illegitimate).

DR. LOMBE ATTHILL'S "CLINICAL LECTURES ON DISEASES PECULIAR TO WOMEN."

A WELL-DESERVED compliment has been paid to the author of this excellent text-book, and through him to the Dublin School of Midwifery and Diseases of Women, by the translation into French of the sixth edition of the "Clinical Lectures." The translation has been made by Dr. P. Lavoie, and is published by H. Lauwereyns, of Paris.

PROCEEDINGS OF THE MEDICAL CONGRESS AT WIESBADEN.

The first "Medical Congress" met at Wiesbaden on April 20, under the presidency of Professor Frerichs. About 150 members enrolled themselves. The President, in the course of a short opening speech, said that the tendency to break up medicine into specialities, which is so strong at present, was the same that had shown itself temporarily among the Alexandrine physicians, and also in Rome among the contemporaries of Galen. For German medicine, he claimed that it stood upon its own bottom, and that for a long period it had not been dependent on foreign guidance, or on impulses coming to it from abroad; while it was always ready to estimate such influences fairly. The first sitting was chiefly occupied with a discussion on Bright's disease, opened by Dr. Leyden, of Berlin. The arterio-capillary fibrosis of English pathology was declared (by Rosenstein) to be extremely rare, and to play no part in the etiology; hypertrophy of the muscular coat of the vessels is the commonest change in them, but even that is secondary. The afternoon sitting was occupied with an exposition by Dr. R. Koch of his research on the etiology of tuberculosis, and with a discussion thereon. In answer to difficulties suggested by Drs. Seitz and Rühle as to inherited tuberculosis, constitutional tendency, and the relation of tubercle to phthisis in general, Dr. Koch said that it was not the bacilli of tubercle that were inherited, but

certain conditions in the individual, favourable to their reception and development. The tubercular nature of a case of phthisis would be decided by the presence of bacilli. Two of the earlier authorities on tubercular micro-organisms, Professor Klebs and Dr. Aufrecht, took part in the discussion. The former joyfully welcomed the results of Koch, and would only claim for himself that he had shown the way in these investigations. Dr. Aufrecht, on the other hand, is reported to have maintained, in opposition to Koch, that the centre of a miliary tubercle is entirely made up of micro-organisms, partly micrococci and partly bacilli, and not, as generally supposed, of decayed cells. He claimed that these central masses of bacilli described by him were practically the same as the bacilli found by Baumgarten in the more peripheral zones of tubercles, while the longer and more slender bacilli of Koch were sometimes mixed with them. Among the other proceedings of the Congress was a discussion on the methods of antipyretic treatment, opened by Professor Liebermeister. The basis of antipyretic treatment, he contended, is the direct abstraction of heat by cooling baths; and in many cases it is also useful to employ antipyretic drugs—quinine or salicylic acid.

HEALTH REPORT ON SOUTHAMPTON FOR 1880.

THE seventh annual report on the sanitary condition of the borough of Southampton during the year 1880, compiled by Dr. Henry Osborn, the Medical Officer of Health for the district, affords one more proof that, in spite of its disagreeable features, the year 1879 was an exceptionally healthy one. Thus, the birth-rate in Southampton during the year 1880 was 32.91 per 1000 persons living, whereas in the previous year it had been 33.73 per 1000; and the death-rate of 1880 had to be returned at 21.16 per 1000 against 18.45 in 1879. The mortality from the zymotic class of diseases was 118, showing an increase of forty-seven deaths from these causes over the total of the previous year. During the first quarter of the year 1880 the mortality from bronchitis and inflammation of the lungs was particularly noticeable, and, in the opinion of Dr. Osborn, was evidently caused by the continuance of the cold and dense fogs, which, for the first time in his recollection, had so persistently troubled Southampton. It would therefore appear that the metropolis is not the only locality which needs to be benefited by a Smoke Abatement Exhibition. The total number of persons admitted into the Urban Sanitary Hospital for Infectious Diseases during the year was ten; of these eight were suffering from scarlet fever, and no fatal case had to be recorded.

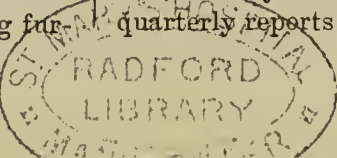
DISTRIBUTION OF ANCHYLOSTOMA.

SOME time since we noticed the connexion between the grave anæmia observed among the workmen employed in the St. Gothard tunnel, and the presence in their intestines of the *Anchylostoma duodenale*, demonstrated by the copious appearance of the ova in the fæces of all the men so affected. Dr. Perroncito, professor at Turin, has been following up his investigations; and M. Megnin and M. Lesage, of Lille, have added to the literature of the subject, proving the presence of the parasite with the same consequences among the miners of St. Etienne and Anzin in France and of Schemnitz in Hungary, and showing its identity with the *Bilharzia*, which infests nearly half the poorer inhabitants of Egypt, and gives rise to the so-called Egyptian chlorosis. It is supposed that the eggs discharged with the stools find in the warmth and moisture of the mines conditions favourable to their development, and enter the digestive canal in the larval form with the water drunk, the same conditions being fur-

nished in Egypt by the climate; but it was not easy to account for so intense and pernicious an anæmia by the minute hæmorrhages they excite—so minute that M. Megnin calculates that 1000 such drops would not give more than twenty grammes of blood. But having made numerous post-mortem examinations of dogs affected with a similar, but very fatal, anæmia in central France, in these he found large tracts of mucous membrane, otherwise fairly healthy, presenting countless red points, each consisting of a drop of semi-coagulated blood, and in the centre a species of anchylostoma a centimetre and a half long. These were more abundant in animals recently ill than in those which had suffered long, the worms apparently travelling downwards and attacking successive healthy portions of the intestinal walls, so that in the latter stages they had almost entirely disappeared from the ileum. The anchylostomata have largely developed salivary glands, the secretion of which seems to irritate the mucous membrane and set up an inflammation, which, becoming chronic, first perverts, and finally annihilates, the digestive functions. Hence the anæmia, due not to the loss of blood, but to the grave derangement of nutrition. It is doubtless aided or aggravated by the frequent co-existence of *Anguillula stercoralis* and *intestinalis*, which in Cochin China are known to induce severe and chronic diarrhoea. Tricocephali also are often found in large numbers. In all such cases M. Megnin would suggest destruction of the extruded ova by heat or chemical agents, care as to the water drunk, such anthelmintics as experience shall indicate, and iron to improve the anæmia afterwards.

THE REGISTRAR-GENERAL FOR SCOTLAND ON THE LAST QUARTER OF 1881.

THE Registrar-General for Scotland has published his report on the last or December quarter of the year 1881. The returns appended show that the number of births registered during the period was 30,845; they were consequently at the rate of 329 to every ten thousand of estimated population, and represent an annual birth-rate of 3.29 per cent. This is 0.122 per cent. below the average of the corresponding quarter of the ten years immediately preceding. Of the eight principal towns, Greenock had the highest and Perth the lowest birth-rate. For every ten thousand inhabitants the births were at the annual rate of 406 in Greenock, 399 in Leith, 354 in Glasgow, 336 in Aberdeen, 332 in Paisley, 329 in Dundee, 324 in Edinburgh, and 280 in Perth. The illegitimate births during the period under notice numbered 2571, or 8.3 per cent. of the whole. On each day of the quarter there were registered on an average nearly 335.3 births. The number of deaths registered for this quarter was 17,526, being in the proportion of 187 deaths to every ten thousand of estimated population. The average death-rate of the corresponding quarter of the ten preceding years was 214.3, or considerably higher than that of the quarter now under review. A comparison with the English death-rate shows that in that country the numbers were 188 deaths for every ten thousand inhabitants during the final quarter of 1881. A glance at the mortality in the five groups of Scottish registration districts shows that for every ten thousand of estimated population in the principal towns the deaths were at the annual rate of 218; in the large towns, 206; in the small towns, 191; in the mainland-rural districts, 148; and in the insular-rural, 141. In each group of districts the death-rate was lower than that for the last quarter of 1880. In Perth the lowest birth-rate was accompanied by the highest mortality—viz., 240 per ten thousand of estimated population; Greenock stood next with 236; Glasgow, 234; Leith, 225; Dundee, 210; Edinburgh, 199; Paisley, 193; and Aberdeen, 181. Although in these quarterly reports for Scotland the remarks on the causes of



deaths refer actually to the eight principal towns, they may be regarded as approximately applicable to the country at large; for upwards of 32 per cent. of the inhabitants reside within these towns, and a disease seldom prevails extensively in one of them without making its influence felt in the surrounding districts. Zymotic diseases were responsible for 1149 deaths during the quarter, the most fatal having been scarlet fever, whooping-cough, and measles, in the order named. Enteric fever was also somewhat prevalent, and was responsible for ninety-two deaths. The meteorological returns for the quarter show that the dominating feature of the weather for October was the almost unparalleled extent of the monthly range of the barometer, and the quite unparalleled strength of the wind on the mean of the whole month, during which the mean temperature was also low, and the direction of the wind unduly much from E.N.E. But the characteristics of the month came to their maximum, happily only short-lived, on the morning of October 14, when there was a depression of an already low barometer by an inch, and a rising again from that level, all within a few hours. Amongst the characteristics of the month of November (all of them departing widely from the average) are that the high temperature has been unprecedented since 1857, and the strength of the wind above everything yet recorded in these returns. The month of December was very nearly an average one, though slightly inclining to extra mean temperature, disturbed barometer, less rain, but more wind, chiefly from the west.

WE much regret to record that Sir John Rose Cormack, M.D., F.R.S.E., died at his residence in the Rue St. Honoré, Paris, on Saturday last, the 13th inst. Sir John was a Doctor of Medicine of the University of Edinburgh and of the University of Paris, and a Fellow of the Royal College of Physicians of London. He was well known as a most earnest and careful observer, and an able practitioner. At one time Physician to the Royal Infirmary, Edinburgh, he afterwards practised in Tours and Paris, where he was still at the time of his death Physician to the Hertford Hospital. During both the sieges of Paris he served as surgeon to the ambulances and on the field, and his skill and devotion were acknowledged by the honour of knighthood from Her Majesty, and the Cross of a Chevalier of the Legion of Honour from the French Republic.

THE festival dinner given at Willis's Rooms on Tuesday evening in aid of the funds of the Samaritan Free Hospital for Women and Children was presided over by the Duke of St. Albans. His Grace dwelt upon the vast amount of good effected by the Hospital, and, in pleading for funds to support it, said he thought the charitable public required to be educated in the matter of discriminate almsgiving up to the standard of the Freemasons of England, who contributed from their limited numbers £13,000 or £14,000 to each of their charities. Donations and subscriptions to the Hospital to the amount of £1258 were announced.

THE Hospital Saturday Collection in Birmingham promises to prove very successful this year. Up to the middle of last week the sums paid in amounted to £4245 15s. 11d., as against £3379 17s. 10d. received at the corresponding period last year. It is hoped that the total may this year be brought up to £5000—a result which would utterly shame the London Hospital Saturday Fund.

DR. CHARLES WEST has arrived in Bolton-row, from Nice, for the season.

THE *conversazione* of the Royal College of Physicians will take place at the College on Wednesday, June 14.

It is also announced that the Harveian Oration will be delivered by Dr. George Johnson on Saturday afternoon, June 24, at four o'clock.

MEDICAL PARLIAMENTARY AFFAIRS.

Patent Medicines.—In the House of Commons, on Friday, May 12, Mr. Warton, having explained the original intention of the Legislature in granting patent rights to certain vendors of medicine, said he strongly disapproved of the apparent sanction given to the sale of secret nostrums by the Government stamp affixed to each bottle. It ought to be understood that the duty was levied upon these medicines for fiscal purposes only. The Government ought not to profit from the evil which resulted to the public through the sale of these medicines. Although restrictions are placed by the Pharmacy Act on the sale of poisons, yet any medicine-vendor could sell highly poisonous medicines under the protection of the Government stamp. He quoted cases where fatal results had happened from the administration of patent medicines and secret preparations. The vendors ought in all cases to be compelled to state when the medicine contained a poison. Dr. Farquharson remarked that an established chemist has something to lose by negligence, but these medicines were sold by booksellers and grocers, who had not the same sense of responsibility. The pharmaceutical preparations of chloral cannot be sold except by registered chemists, while a patent solution of chloral of double the strength can be sold by anyone. Mr. Hibbert remarked that, on behalf of the Government, he should be glad if something could be added to the label to show that there was no Government guarantee, and that the duty was levied for fiscal purposes. He thought that all medicines containing poison should be so labelled as to indicate the extent to which they are poisonous. He could not make any promise except that the matter would be fully considered.

Army Estimates.—On the vote for medical establishments, Sir R. Lindsay remarked that the Army Hospital Corps was not working satisfactorily. Serious charges were made against the corps during the campaign in South Africa. Mr. Childers replied that the present system was being carefully inquired into, and if a change was desirable it would be made.

Metropolis Management and Building Act.—In committee on this Bill, the first nine clauses were agreed to.

THE BROMIDES AND CHLORAL IN PERTUSSIS.—Dr. Dujardin-Beaumetz recommends the following mixture as useful in whooping-cough, giving morning and evening a dessert or tablespoonful, according to age, in a glass of milk to which the yolk of an egg has been added:—Bromide of potash 2 grammes, bromide of soda 4, bromide of ammonia 2, water 60, and syrup of chloral 50 grammes.—*Progrès Méd.*

APHORISMS ON TREATMENT OF DISEASES OF THE EYE.—Dr. Chisolm, chairman of the Section of Ophthalmology, at the recent meeting of the Maryland Medical and Surgical Faculty of Maryland, lays down these aphorisms—1. Do not blister; in nine cases out of ten it is useless torture. 2. Do not use nitrate of silver; in not one case out of fifty is it beneficial as generally prescribed. 3. Do not use acetate of lead, for fear of leaving lead marks on the cornea. 4. Weak astringents are the best remedies for affections of the mucous surface, combined with absolute cleanliness. 5. Use weak solutions of eserine for corneal affections. 6. Atropic solutions are essential for breaking up recent iritic adhesions. 7. When in doubt, call in a specialist. Eserine, he observes, is beginning to play a very conspicuous part in a great number of eye-diseases, supplanting atropia to a great extent. The strength of its solution is one part in 200 of water. A drop of this in the eye on rising will in photophobia and commencing presbyopia sharpen the eye for vision for reading during the day. It is efficacious in all cases of increased tension of the eye, of which glaucoma is the type. In all corneal affections eserine has taken the place of all other remedies.—*Phil. Med. News*, April 29.

DR. BEALE AT THE VICTORIA INSTITUTE.

At the meeting of the Victoria Institute or Philosophical Society of Great Britain, held on Monday, the 15th inst., Dr. Beale, F.R.S., read a paper on "Dictatorial Scientific Utterances and the Decline of Thought." It is well known that Dr. Beale is one of the small of scientific inquirers and teachers who "have objected to the physical view of life as untenable in the present state of scientific knowledge, and as being, upon various grounds, unworthy of acceptance," and in the vigorous paper of which we speak, he sets forth some of the reasons which have led him to this conclusion. The paper does not admit of abstract, but we give our readers the following extract from it:—

Professor Huxley, with that curious partiality for contradictory statements which distinguishes many of his utterances, condemns in one place the idea of an "indivisible unitary archæus dominating from its central seat the parts of the organism," and in another tells us that "the body is a machine of the nature of an army." Every army to be of any use must, of course, be under a head of some kind or other, but Mr. Huxley's army has no general or indivisible unitary archæus of any kind. Each soldier is, I suppose, to govern himself under inexorable laws enacted when everything was in the state of primitive nebulosity. The army of Professor Huxley is, as we shall see, the most marvellous of all nebulous machinery yet discovered by materialists.

Now let us admit for a moment that the body may be compared to a "machine" of the nature of an army. How does the comparison help us to understand the nature of the body? For is not the army actually composed of a number of machines of the very same kind as that body machine which is said to be like it? What, therefore, can be gained by the comparison? Obviously nothing would be gained by telling people who wanted to learn about the nature of a sheep that it was like a flock of sheep. But the body is a machine of the nature of an army, and the microcosm contains the macrocosm, and, therefore, possibly the body, according to Huxleyan logic, contains the army. But I may be wrong, for it is not an army, but a machine of the nature of an army. We have machines of the nature of a watch, machines of the nature of a windmill, and machines of other natures, but the machine which the body is like is of the nature of an army. But this last "machine" is essentially different from all the other machines because it is composed of living men, while machines in general consist of non-living materials. In short, Professor Huxley uses the word machine just as he uses the word protoplasm in speaking of that which is living as well as of that which is not living!

But Mr. Huxley's "machine of the nature of an army" shall be further examined. It will be found to be very peculiar indeed, whether it is compared with machines or with armies. The army of Professor Huxley would not be recognised as an army by any general, or by any soldier in existence. This remarkable army has "its losses made good by recruits born in camp." This is an excellent idea for increasing the number of soldiers, and may be recommended to the War Office.

In the body "each cell is a soldier," says Mr. Huxley. If so, I suppose each cell has the power of acting, of displaying intelligence, of obeying the word of command, and carrying out the orders of the general. In a few sentences further on, as well as in many papers he has written, he deprecates this view altogether, and talks about vital actions being "nothing but changes of place of particles of matter," and he looks forward to "the analysis of the living protoplasm itself into a molecular mechanism." The body he regards as "a synthesis of innumerable physiological elements," each of which may be described "as protoplasm susceptible of structural metamorphosis and functional metabolism."

After all our work, all our chemical, physical, and microscopical investigation—after all that has been gained by most minute and careful anatomical investigation carried on for many years, Mr. Huxley comes forward, and in the most public manner possible, and tells the world that the body is not like a watch, or a hydraulic apparatus, but an army—and such an army as never has existed and never could exist; an army not to be conceived by the imagina-

tion; an army beyond all powers of reasonable conjecture; an army, the fighting power of which would be destroyed not only by the birth of its recruits, but by the necessary phenomena which would precede that interesting event. But, alas, this is not all, for this army of Professor Huxley's, strange to say, is unfit to survive, for does he not tell us that it is certain of defeat in the long run! Professor Huxley's army is not an army at all, but only an imaginary heterogeneous collection of nebulous impossibilities. It is scarcely credible that such suggestions as those I have criticised could be seriously made in the presence of hundreds of representative medical and scientific men from all parts of the world. You will, however, find them on page 99 of vol. i. of the "Transactions of the International Medical Congress."

FROM ABROAD.

THE PARIS HOSPITAL MORTALITY RETURNS.

DR. ERNEST BESNIER, in his report for the last quarter of 1881 (*Union Méd.*, February 19 and March 5, 9, 14, 19), states that the temperature was somewhat below the mean temperature of the quarter, while the quantity of rain that fell was very much below the mean. The general mortality of the civil hospital and hospices was higher than that of the same period of the year calculated for the nine years preceding, viz., 3784 deaths, in place of the mean number of 3075. The general mortality of the hospitals for the whole year 1881 was 15,474, being less than the total for 1880 (in consequence of the excessive severity of the winter 1879-80), but notably higher than the last decennial mean, which is 12,843.

1. *Affections of the Respiratory Organs.*—This first portion of winter is but the prelude of the period in which the affections of the respiratory organs really constitute the dominant note in the seasonary pathology—a period which, indeed, passes to beyond the duration of winter and is prolonged into April. Nevertheless, the increase of the relative mortality of these affections has become already evident; for while the deaths in the hospitals from pneumonia, for example, were 27 per cent. on the admissions for the disease in the third quarter (i.e., the end of summer and commencement of autumn), they have risen in this fourth quarter (the end of autumn and beginning of winter) to 35 per cent., to attain 40 per cent. in the first quarter of the present year. During this fourth quarter there were received 1598 cases of phthisis with 884 deaths, 546 cases of pneumonia with 192 deaths, 1084 cases of bronchitis with 46 deaths, and 364 cases of pleurisy with 64 deaths.

2. *Diphtheria.*—This disease, which had undergone its normal declension in summer, again resumed its ascensional course at the beginning of winter. For entire Paris, the deaths from diphtheria were 543 during the first quarter of 1881, 553 during the second, 536 during the third, and 605 during the fourth, or a total of 2237 for the year. But notwithstanding temporary and normal seasonary abatements, the disease is still advancing, for while the deaths for the last quarter of 1880 were but 462, they have risen during the same quarter of 1881 to 605. The progress of public hygiene has proved as ineffectual in checking the invading progress of the disease as that of the medical art has in saving the lives of those attacked by it. Its mortality, incessantly on the increase during twenty years, has in the last ten years proceeded with such a rapid pace that it has become doubled, so that the disease has come to occupy permanently the first place in the comparative scale of reigning diseases. While, during the last ten years, typhoid fever (although there have been some severe epidemics) has only caused 13,004 deaths in all Paris, and the united eruptive fevers, small-pox, measles, and scarlatina, only 14,100 deaths, diphtheria has itself produced 16,629 deaths! "Do our administrative bodies and medical practitioners," Dr. Besnier asks, "take sufficient account of this fearful tribute? Is all the requisite attention, medically and administratively, brought to bear on the situation? We do not believe it, but it has been well-nigh in vain that for so many years we have not ceased pointing out the evil and its incessant progress. Nevertheless, once more we reproduce

the decennial table of the mortality from diphtheria in Paris, set forth by months and year, so arranged as to exhibit in relief all the important particulars which we have already so often specified."

During the year 1881 there were admitted into the hospitals 1255 cases of diphtheria, furnishing 820 deaths, or 66 per cent.—a proportion below the actual fact, inasmuch as all those who leave the hospitals are set down as cured, which unfortunately was not always the case. This mortality, however, is that of diphtheria *en bloc*, viz., including cases of diphtheritic angina and croup—100 cases of these diseases combined always furnishing at least 65 deaths. But if the cases admitted in 1881 be divided as accurately as attainable, it will be found that 569 of them were cases of diphtheria, properly so called, of which 300, or 52 per cent., died; while 686 were cases of croup, with a mortality of 77 per cent., which in winter may mount up to above 90 per cent. A table is given, showing the greater mortality of croup among boys as compared with girls. Thus there were 49 cases of diphtheria in boys, with 31 deaths, or 63 per cent., and 45 cases in girls, with 27 deaths, or 60 per cent.; but of croup there were 102 cases among boys, with 97 deaths, or 95 per cent., and 100 cases among girls, with 82 deaths, or 82 per cent.

2. *The Eruptive Fevers*.—During the year 1881 there were received into the Paris hospitals 2180 cases of small-pox, with a mortality of 454, or 20 per cent.; 665 cases of measles, with a mortality of 115, or 17 per cent.; 734 cases of scarlatina, with a mortality of 60, or 8 per cent.; and 1255 cases of erysipelas, with a mortality of 141, or 11 per cent.

3. *Small-pox*.—The epidemic of small-pox which commenced in 1879, and attained its maximum in 1880, experienced a regular and uninterrupted decline from the spring of 1881, bringing the mortality from this cause back again to pretty much what it was in 1879. Attention has often been called in these reports to the extreme irregularity with which small-pox makes its appearance in the course of years—an irregularity which occurs to this extent in no other eruptive fever. A year of excessive epidemic paroxysm may be preceded or followed by one that is quite sterile—a fact of importance, inasmuch as these extraordinary and sudden variations, these excessive inequalities at so short a notice, are entirely opposed to the opinion that supposes populations at certain times to be saturated or non-saturated with variolic or vaccinal virus. It is obvious that these alleged oscillations of variolic receptivity can only be produced gradually, and do not burst out after the fashion of true storms. A table is given, which exhibits the mortality from small-pox in Paris in the following years:—In 1872 there were 102 deaths, 17 in 1873, 46 in 1874, 253 in 1875, 374 in 1876, 136 in 1877, 89 in 1878, 904 in 1879, 2130 in 1880, and 982 in 1881—being 5033 deaths in the ten years.

4. *Measles*.—The following is the number of deaths which have taken place in Paris during the last ten years from this disease, which exhibits a regularity not found in small-pox, attaining an annual paroxysm in spring and summer. There were 583 deaths in 1872, 561 in 1873, 635 in 1874, 686 in 1875, 888 in 1876, 652 in 1877, 697 in 1878, 917 in 1879, 987 in 1880, and 927 in 1881—being a total of 7524 deaths.

5. *Scarlatina*.—Dr. Besnier has frequently pointed out in his reports the remarkable position of scarlatina in Paris, showing how rare and benign a disease it has been in comparison with its manifestations in other countries, especially in England and in London. This discordance was strikingly exhibited by showing that from 1871 to 1880 exclusively—i.e., during nine years—scarlatina produced in Paris only 951 deaths, or nearly three times fewer than those which occurred in London during a single year. But he pointed out also that from 1880 this Parisian immunity seemed to be about to cease; for the number of deaths suddenly sprang up in that year to 356 from the 95 registered in 1879, and in 1881 they still further increased to 452. Attention was then drawn not only to the greater number of cases that presented themselves, but to their gravity, and that especially from the multiplication of anomalous, complicated, and malignant forms. The following is the number of deaths that have occurred in Paris during the last ten years:—124 in 1872, 85 in 1873, 68 in 1874, 88 in 1875, 138 in 1876, 92 in 1877, 60 in 1878, 95 in 1879, 356 in 1880, and 452 in 1881—being a total of 1543.

6. *Typhoid Fever*.—During the year 1881 typhoid fever maintained in Paris the excessive proportions which it had

assumed in 1881, exceeding by more than a third the annual mean. The following is the number of deaths occurring during the last ten years:—1011 in 1872, 982 in 1873, 823 in 1874, 1048 in 1875, 2032 in 1876, 1201 in 1877, 857 in 1878, 1121 in 1879, 1981 in 1880, and 1952 in 1881—total, 13,004 deaths. The total admissions into the hospitals for typhoid fever during 1881 amounted to 4083, with 904 deaths. Of these, 1288 occurred in the first quarter, with 315 deaths; 865 in the second quarter, with 176 deaths; 942 in the third quarter, with 201 deaths; and 988 in the fourth quarter, with 212 deaths. The figures of this year confirm those of former years in establishing that while the cases of typhoid are more numerous among males than among females, their relative mortality is less. In 1881 it was 21 per cent. for men, 24 for women, 14 for boys, and 21 for girls.

REVIEWS.

The Physical Signs of Cardiac Disease. By GRAHAM STEELL, M.D. Edin. Edinburgh: Maclachlan and Stewart. 1881. Pp. 63.

The Physical Signs of Pulmonary Disease. By GRAHAM STEELL, M.D. Edin. Edinburgh: Maclachlan and Stewart. 1881. Pp. 92.

THE unpretending appearance of these small volumes renders it probable that the profession may, for a time at least, overlook their intrinsic importance. These books are so full of valuable material that it is impossible to give anything like an analysis of their contents. Brevity of style is carried to its utmost limits. It would, indeed, be difficult to find a redundant phrase or word in either volume, and a sentence presenting the slightest obscurity is not to be met with. To give a specimen of the author's method of handling his subject, we take at random his remarks on the "frequency of the respiratory movements in disease."

After laying down the law that "any interference with the respiratory process occasions a stimulation of the controlling nervous centre, which is expressed by increased frequency of the respirations," he proceeds to observe that "acute diseases affecting, directly or indirectly, the vesicles of a portion of lung, while there exists no impediment to the to-and-fro movement of air in the tubes in connexion with the vesicles of the unaffected parts, are found to produce the greatest amount of acceleration." Obstruction in the larynx might be supposed to have a similar effect, "but clinically we find it is not so, and for a very simple reason, namely, that each respiratory act is a laboured struggle—often a double struggle, inspiratory and expiratory,—and must be of considerable duration, thus negating increased frequency of respiration, and often actually diminishing the normal frequency." In disease of the tubular apparatus intermediate between the larynx and air vesicles "there are two contending agencies at work, as regards the frequency of respiration. One is the stimulation of the respiratory centre of the medulla oblongata, tending to produce acceleration; the other is the mechanical difficulty in the accomplishment of each single respiration. Clinically, sometimes the one and sometimes the other obtains the mastery, but usually respiration is only slightly exaggerated."

Original suggestions and explanations abound in these works, while the author's judgment is unerring in deciding in favour of the most reasonable of several contending doctrines. Other points worthy of notice are the valuable tabular classifications of physical signs prefixed to each section of the two volumes, and the fact that the author has adopted the views of Skoda rather than those of Walshe with regard to the auscultation of normal and morbid breath-sounds, this being, in our opinion, a very great improvement. These books are well illustrated by many judiciously chosen woodcuts.

Of Dr. Steell himself it will suffice to say that he is a distinguished graduate of the University of Edinburgh and that since he graduated, ten years ago, his whole life has been devoted to the study of disease within the walls of large hospitals. He has therefore had exceptional opportunities of acquiring clinical experience, and he has availed himself of these to the utmost. Those who know him best will be the least likely to accuse us of using the language of exaggeration or indiscriminate eulogy when we say that he is one of the most accomplished clinical observers and diagnosticians in the profession.

These volumes were designed for the use of clinical students, and are dedicated to the students of the Manchester Royal Infirmary. It would be difficult to praise them too highly, and we only wish we could see them in the hands of every medical student in the United Kingdom.

A Study of the Tumours of the Bladder. By ALEX. W. STEIN, M.D. New York: Wm. Wood and Co. 1881.

THIS small monograph deals in an interesting manner with the pathology, symptomatology, diagnosis, and treatment of tumours of the bladder. It is well written, and will be of great service to those who have to deal with these cases.

The tumours which occur in the bladder are papillomata, myxomata, fibromata, myomata, or various forms of malignant disease. The most common simple tumour is the papilloma, but, according to Stein's investigations, mucous and fibrous polypi are by no means of infrequent occurrence, and they are generally found at an earlier period of life than the other forms. Stein considers that epithelioma of the bladder is the most frequent primary malignant disease, differing in this from many other authorities. On the other hand, sarcoma is one of the rarest diseases of the bladder.

The diagnosis of the various forms of tumour is carefully gone into, and also the differential diagnosis from stone. All the cases in which operation has been performed both on males and females are narrated, and a consideration of the results leads to the conclusion that in females surgical interference is very satisfactory, while in males it is a much more serious question. In males the perineal operation is that which has been most frequently adopted, but in difficult cases the parts can only be properly exposed by the suprapubic incision, and many tumours could only be successfully removed in this way. If the supra-pubic incision be adopted, stitching up the wall of the bladder and continuous bladder-drainage, according to Chiene's method, will probably give the most satisfactory result.

The Weather of 1881, as observed in the Neighbourhood of London, and compared in all respects with that of an Average Year. By EDWARD MAWLEY, F.M.S., F.R.H.S. London: Edward Stanford, 55, Charing-cross; and Williams and Strahan, 7, Lawrence-lane, E.C. 1882.

To that large portion of the public who take a lively interest in the thoroughly British topic of the weather, this little annual, now entering on its third year of publication, should prove particularly interesting. Month by month throughout the year the meteorological history is accurately recorded, including records of the barometrical pressure, shade temperature, radiation temperature, temperature of the soil, relative humidity of the air, direction of the wind, amount of rainfall, sunshine and cloud, and mortality in London. A comparison of the weather of the year is also given with that of the year immediately preceding; and as much care is evidently taken by the author to render the information offered as accurate as possible, for purposes of reference the pamphlet must be pronounced decidedly useful. It should also be mentioned that its price, sensibly fixed at one shilling, places it within the reach of the humblest student of the weather.

BODY - SNATCHING IN CANADA.—According to the Quebec correspondent of the *Phil. Med. News* (April 15), this practice, which is usually believed to have been long abandoned, is quite rife in Quebec, where one of the teachers stated that during the last eight years about 75 per cent. of the bodies dissected have been "knaved out of their graves." There is a good Anatomy Act in Canada, but the carrying out of its provisions is wholly neglected by the officials. Many of the poor-houses, asylums, etc., refuse to supply unclaimed bodies, for most of them are under religious sisterhoods who regard burial as a religious duty. The supply has, therefore, been taken in hand by the French Canadian students, who being poor, while the risk is very small, are glad to get 25 fr. per body. Public attention has, however, been greatly aroused by some instances that have occurred, and a Bill is before the House of Assembly, rendering it compulsory for the heads of the various institutions to notify the deaths of friendless paupers and delinquents.

REPORTS OF SOCIETIES.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, APRIL 21.

DR. TRIPE, President, in the Chair.

THE minutes of the previous meeting having been read and confirmed, it was resolved that a communication be addressed to those members of Parliament who are interested in the Bill for notifying the existence of infectious diseases, advising that the Bill should be framed so as to affect only the metropolis, and that it should include in its operations measles and puerperal fever, but not erysipelas.

THE PRESIDENT announced that as a representative of the Society he had been placed on the Council of the Society for Scientific Research in Medicine.

A letter urging the importance of sanitary supervision of dairies and milkshops was referred to the Council for consideration.

It was moved by Drs. CARPENTER and DUDFIELD that it be referred to the Council to consider what action it is desirable to take as respects the proposal for transferring the authority over milk-shops from the magistrates to the sanitary authorities.

THE President of the Midland Society of Medical Officers of Health came to confer with the members respecting the powers for the closure of elementary schools when infectious diseases are prevalent. He announced that several school authorities are opposing the movement.

DR. FOSBROKE moved a resolution—"That this Society being of opinion that infectious diseases are spread through the medium of elementary schools, approve of steps being taken with the view of legislation to compel closure of schools when so affected." It was also resolved that a copy of this resolution be sent to Mr. Mundella, to support him in the action which he is now taking.

THE PRESIDENT remarked that the School Board at Hackney have closed their schools upon a certificate furnished by him that danger would arise in consequence of keeping the school open.

MR. FOSBROKE advised that each case should be decided on its own merits. Where disease is spread through the agency of the school it should be closed.

DR. CARPENTER remarked that the closure of a school might be avoided in some cases if the sanitary authorities were to place them in a proper sanitary condition. Children are often safer at school than at their own homes. If well ventilated and well drained, and the school attendants are wise enough to exclude all those who are out of health, and to refuse children from houses where scarlet fever prevails, such measures would greatly tend to obviate compulsory closure.

DR. DUDFIELD proposed that the attention of Mr. Mundella be directed to the desirability of passing the Infectious Diseases Bill, so as to afford the medical officer of health the means of discovering the existence of infectious disease, that he may take immediate steps to prevent it spreading to other children attending the school.

This was carried.

DR. WILLOUGHBY then read a paper entitled "Suggestions for the Reorganisation of the Sanitary Service," of which we subjoin a summary. The author began by pointing out the shortcomings of the Public Health Acts of 1872-75, which had failed to provide the country with a body of trained health officers or of men devoting their whole time and attention to sanitary matters. Even the few rural combined districts, from which much might have been expected, have been broken up when the medical officer of health chanced to give umbrage to influential offenders. He insisted on the importance of medical officers of health being free from private practice, and the necessity of their being independent of the local authorities, arguing that their duties were those of inspectors of the public health, and that they were not servants or agents of the local boards, as were surveyors, parish surgeons, etc. They ought to be appointed by the central authority as much as H.M. inspectors of mines, shipping, etc., whom it would be deemed

absurd to place at the mercy of the persons over whose acts they had to watch. The medical officer of health should show proof of a knowledge of physics, chemistry, engineering, house construction, and sanitary science generally—subjects which form no part of the education or examinations of the ordinary medical student; in other words, he should possess a certificate in sanitary science as well as diplomas in medicine and surgery, which are all that are required of him at present. Such certificates, Dr. Willoughby thought, should involve an examination also in forensic medicine and the law of evidence; in fact, should cover the whole field of state medicine. Poor-law medical relief, he maintained to be a department of the public health, and as such it ought to be separated from pecuniary relief, and transferred from the guardians to the sanitary authorities. The medical officers of health and the parish surgeons would be thus drawn closer together, and the former would gain access to much valuable information, *e.g.*, as to the prevalence of diseases other than infectious, which are no mean indications of the hygienic conditions of a district. Dr. Willoughby could not agree with those who advocate the creation of a Minister of Health, who would (in this country at any rate) not be a medical man. The director of the public health must be a permanent officer, independent of the changes of political parties; in fact, a permanent Under-Secretary of State. He would propose the division of the functions and duties of the Local Government Board between two co-ordinate departments, to be called the Poor-law Board and the Board of Health, the latter taking cognisance of all matters in any way affecting the public health, including not only epidemics, public works, etc., but also the Poor-law Medical Service, and several things at present referred to other offices. The Poor-law Board would take charge of financial matters, workhouses, Poor-law relief, and everything not of a sanitary character. Each would be under a vice-president, responsible only to the President of the Local Board for the time being. The Vice-President of the Board of Health should be a physician chosen for his special knowledge and administrative ability; and the Board should consist of three other medical men, two engineers and a chemist. The present medical officer and the senior inspectors of the Local Government Board would constitute the first Board of Health, future vacancies being filled by selection from the inspectors and medical officers of health. The whole country should be divided into urban and rural districts, the former consisting of towns with not fewer than 80,000 or 100,000 inhabitants, and the latter of large rural areas each with a central town of considerable size; and as far as possible, even by readjustment, the division of other, especially registration, districts should be avoided. He did not think that the present medical officers of health of rural parishes or small towns would lose much by being superseded. Such as chose to qualify themselves for the Sanitary Service would have opportunities of promotion, and the position of those who are now devoted to the work would be fixed and improved; the rest had much better retire altogether. The local boards, though no longer electing the medical officer of health, ought to have some acquaintance with the nature of his work. He proposed that in each sanitary district, urban or rural, there should be a local board of health, composed partly of members elected by the ratepayers, and partly of others nominated by the central Board of Health; the latter would of course be men known to take an interest in sanitary matters or in collateral sciences, and the former should be in preference medical men, surveyors, architects, etc. Registration of births and deaths originally bore only on the descent of property, but since the value of vital statistics has begun to be recognised, the present system is seen to be very imperfect. A large proportion of the causes of death are quite untrustworthy, being either "uncertified" and furnished by the friends, or suggested by the registrar (!), while many of those vouched for by medical men are most unsatisfactory. The correction (?) of the returns by a non-medical superintendent registrar is worse than useless; and though the medical officer of health is often able to revise the duplicate returns supplied to him for the use of the sanitary authority, his corrections do not reach the office of the Registrar-General. The appointment of medical men as superintendent registrars has been suggested, and there can be no objection to it, but the same end might be as well or better attained by the superintendent registrar holding his office in the same building as the medical officer of health,

and all returns from the district registrars being submitted in the first place to the medical officer of health for examination and correction. Information of death should be given sooner than is at present required, and in all cases of uncertified or doubtful causes the medical officer of health should institute an inquiry on the spot, giving a corrected certificate if satisfied, or reporting the case to the coroner if not. The coroner should then be bound to hold an inquest. There would then be more inquiries but fewer inquests, and many cases of foul play would probably be brought to light which are at present concealed by the practice of accepting uncertified causes. The nosological value of the Registrar-General's reports would be greatly enhanced. The whole method of taking medical evidence in courts is radically wrong. The equality in the eye of the law of all medical men is a mischievous fiction, but the fundamental mistake lies in the custom of retaining scientific and medical men as witnesses for the prosecution and defence, thus inevitably converting the expert into the advocate. The function of the expert should be to assist the court by stating without reserve, and regardless of parties, scientific facts which the judge and jury could not otherwise know, in language at once scientifically correct and yet intelligible to unscientific persons, without excess of confidence or of caution, and in accordance with the sometimes arbitrary laws of evidence. To do this with credit demands study and practice, and there is an urgent need for a class of trained and skilled medical experts. Though questions of insanity, of the remote consequences of railway accidents, and a few others, would still require the services of specialists, experts in forensic medicine generally, and the allied scientific subjects, would be ready to hand in the persons of medical officers of health, such as this scheme supposes—men versed in every branch of state medicine, and familiar with the methods of scientific investigation. If the local authorities were deprived of the power of appointing medical officers of health—a power which they have so generally shown themselves unfit to exercise—they could not be called on to pay their salaries, but the change would afford a Ministry an opportunity of granting a much desired relief to local taxation. The case of the metropolis, which does not come under the operation of the Local Government Act, need not present any real difficulty, for if the medical officers of health were state-paid, it could be divided into nearly equal districts, each under its own officer, just as it is now apportioned among H.M. inspectors of schools.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 2.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

CANCER OF THE SIGMOID FLEXURE.

DR. DICKINSON showed a specimen of this disease from a woman aged forty-nine, who presented during life a large abdominal tumour to the left of the middle line; it extended from the thorax to the pelvis, and was extremely tympanitic on percussion. It appeared to be due to a collection of gas in the peritoneum; subsequently the skin became very red, and, as it appeared ready to slough, it was punctured, and foetid gas escaped. Afterwards, fæces and pus passed through the wound, and the patient soon sank and died. At the post-mortem examination, the cavity which had contained the gas and pus was found to be situated in the subperitoneal tissue, and was connected with a cancerous stricture of the sigmoid flexure, which had perforated the gut; this stricture was so tight that it was difficult to understand how fæces could have passed through it, and yet there had been at no time any obstruction.

Mr. HARRISON CRIPPS inquired whether there were any secondary deposits in the abdominal organs; for it appeared to him that the growth might be one of the simple adenoid tumours which were not malignant in the full sense of the word, and which, if a diagnosis could be made during life, would probably be found susceptible of removal.

Dr. DICKINSON said that no microscopical examination was yet made; the other abdominal organs were free from growth.

DISSECTION OF NERVES AND GANGLIA IN ADDISON'S DISEASE.

Three dissections of the supra-renal capsules and of the related sympathetic, made by Mr. Sutton, were shown; one was from a case of Addison's disease, one was from a healthy adult, and one from an infant.

Dr. DOUGLAS POWELL said that the patient with Addison's disease was a man aged twenty-two, in whom the disease ran a very acute course. When admitted into the Middlesex Hospital he was in a very emaciated condition; he presented several deeply pigmented patches, as well as "splashes" of pigment over the whole body; the hands were extraordinarily pale; the pulse was hardly perceptible; and vomiting was very severe. Blistering was followed by deep pigmentation. The temperature was low; urine normal; he exhaled a very cadaveric odour before death. In about two months he died from exhaustion. At the post-mortem examination, tubercular disease of both lungs was found; the heart and aorta were unusually small, and the former weighed only five ounces and a half. The supra-renal capsules were much enlarged, nodulated on the surface, and uniformly infiltrated with a fibroid material containing lumps of caseous and cretaceous matter. A dissection of the nerves of the supra-renal capsules was made by Mr. Sutton; they were found to be enlarged, owing apparently to thickening of the sheaths; the ganglia were enlarged and indurated. Dr. Powell thought that the case agreed with those others, before reported to the Society, which seemed to show that the destruction of the supra-renal capsules had little to do with the symptoms of Addison's disease, for it was impossible to suppose that such chronic changes in the capsules as he had described could occur in the short space of eight months. Microscopical examination did not reveal any decided change in the ganglia.

The PRESIDENT inquired whether the change in the nerves had travelled from the capsules along the nerves towards the plexus. He referred to a former discussion at this Society, in which the opinions generally expressed seemed quite opposed to the views held by Dr. Powell.

EMBOLISM OF PULMONARY ARTERY.

Mr. BOYD, who exhibited this specimen, said that the patient was a woman, who had sustained fracture of the metatarsal bones of the right foot, and severe bruising of the right leg and thigh. Thrombosis of the femoral vein ensued, and, a little later, she somewhat suddenly became cyanosed, and her breathing became exceedingly rapid, though not difficult; there was no pulse at the wrist. She died in ten minutes. At the post-mortem examination the right pleura contained two ounces of bloody fluid; but the lungs were normal. In the right side of the heart was an almost completely decolourised clot, which extended to the bifurcation of the pulmonary artery. Beyond this, a firm clot, having no connexion with the walls, was found. The left pulmonary artery was plugged as far as its second bifurcation. The clots in the various branches all ended abruptly. There was an appearance of an embolus in the clot in the left artery. On section of this supposed embolus, it was found to be firm, very dark in the centre, with a pale, faintly laminated periphery.

ADDISON'S DISEASE: (?) RUPTURE OF THE ŒSOPHAGUS.

Mr. BOYD said that the patient from whose body the specimen was taken was a young woman aged eighteen, who was admitted in a moribund condition into University College Hospital, under Mr. Heath. The most marked symptom was vomiting of the most severe kind; there was no dyspnoea, and no subcutaneous emphysema. At the post-mortem examination, about two ounces of bloody fluid, free from any trace of food, were found in the left pleura; this had apparently been extravasated through a rent in the left side of the œsophagus and its investing pleura. This rent was five centimetres long; its edges were well defined, and not ragged; the mucous membrane had been destroyed for a short distance in parts, and the pleura over this part of the œsophagus had quite disappeared, but was still smooth and glistening in the immediate neighbourhood; the gastric mucous membrane showed the recognised signs of self-digestion. The supra-renal bodies were much enlarged, and, on section, were firm and of a yellow colour. Microscopic examination showed a dense, very small, round-celled growth, containing many granular protoplasmic masses with marginal

nuclei. Dr. Sidney Coupland, who had seen the specimens, agreed with Mr. Boyd in considering the change to be tubercular. Inquiries that Mr. Boyd had made proved pretty conclusively that the girl had been suffering from Addison's disease for about seven months (at least) before her death. He believed that the rupture of the œsophagus had occurred during life, founding this opinion on the form of the rupture—a long tear, not a circular or irregular aperture—on the character of the fluid found in the pleura, and on the absence of much evidence of post-mortem digestion. Zenken and Ziemssen had described sudden pain, cessation of vomiting, emphysema, collapse, and suppression of urine, as the symptoms of rupture of the œsophagus; and, as these were not present, he concluded that the rupture must have occurred shortly before death.

(?) RUPTURE OF THE ŒSOPHAGUS.

Mr. BOYD also related a case in which the œsophagus had ruptured into the right pleura, and exhibited the specimen. The patient was an infant aged four months, who had been exceedingly ill for some weeks before death, owing to an attack of erysipelas, succeeded by peritonitis, which had followed on operation for strangulated undescended testicle. About two hours before death, dyspnoea suddenly set in, and lasted for an hour; after the dyspnoea passed off the child was able to take food in small quantities, but while it prevailed it choked when given brandy and milk. At the post-mortem examination about one ounce of clear, deeply blood-stained fluid, free from lymph or any trace of milk, was found in the right pleura. Both lungs were partially collapsed; the lower and middle lobes on the right side were very red, and were studded with petechiæ; and at the root there was a considerable sub-pleural hæmorrhage. The pleura was absent from the œsophagus over the whole of its right side, below the root of the lung, and its torn edge could be easily seen near the diaphragm. Pressure on the œsophagus caused a bubble of air to escape through a small opening in its wall; on the inner aspect of the gullet several small blood-clots were found near the hole referred to; this measured about two millimetres, and, for a short distance above and below, the circular muscular fibres were exposed. Mr. Boyd considered that the clots in the gullet, the bloody fluid in the pleura, the marked redness and numerous petechiæ on the surface of the lung, proved that the perforation took place during life; and that, possibly, it had been the cause of the dyspnoea which set in a few hours before death.

Mr. BUTLIN did not think that the first case was an instance of ante-mortem rupture of the œsophagus, and suggested that the specimen be referred to the Morbid Growths Committee for report. He inquired whether the stomach or pleura contained blood.

Mr. BOYD said that the pleura did contain some bloody fluid, and, in reply to the President, he referred to another case, described in the *Transactions* of the Society for 1846-47, where a man was seized with sudden severe pain after making an attempt to vomit soon after a heavy dinner. After death, extensive recent pleurisy was found.

Mr. MORRIS wished to know whether there had been any evidence of marked interference with the functions of the pneumogastric nerve.

Mr. BOYD said that there had been no such symptoms described by authors, or witnessed in his case, beyond some collapse.

Dr. POWELL said that it was to be remembered that, in the first case, there was Addison's disease; and, as the pneumogastric nerve gave a branch to the supra-renal capsule, the branches supplied to the œsophagus might have also been affected, and some nutritive changes might thus have been produced in the œsophagus.

DISEASE OF THE SACRUM.

Dr. ANGEL MONEY showed a sacrum, removed from the body of a boy aged three years, who had died, under the care of Mr. Marsh, in the Hospital for Sick Children. On admission, the child presented two large abscesses, one at the upper and outer part of the left thigh, and the other in the left calf. The abscesses were opened, and on the following day the temperature rose to 105°4'; a scarlet rash appeared, as well as sore-throat, and some diarrhoea. These symptoms all continued. Ten days later slight otorrhœa was noticed, and on the following day the child died. At the post-mortem

examination, the anterior borders of the first and second sacral vertebrae were found discoloured, bare, and rough; and the intervertebral fibro-cartilage was wasted and softened. The abscess in the left thigh communicated with the sacral disease through the great sciatic notch; there was no lumbar or rectal disease. A surface of bone at the posterior aspect of the tibia was bare and roughened; the abscess in the calf did not communicate with that in the thigh. The middle ear on the right side was full of pus, and so also was the left hip-joint; no other purulent collections were detected. Dr. Money thought the case of interest from the rarity with which the body of the sacrum was the seat of primary disease.

TUMOUR PRESSING ON SPINAL CORD.

Mr. H. MORRIS (for Dr. LEDIARD, of Carlisle) showed a specimen of tumour of the sheath of the cord. A clinical history had been supplied, which was shortly as follows. The patient experienced at first some pain in the back of the neck, without any discoverable cause; subsequently, paralysis of sensation and motion of the left upper limb gradually came on; then the left lower limb became paralysed; then the limbs on the other side gradually became similarly affected,—so that for a fortnight before death he remained absolutely unable to move. Finally, the respiratory muscles failed, and he died, retaining his consciousness to the last. At the post-mortem examination, a small tumour, which was sufficiently large to entirely overlap the cord, was found lying on its posterior aspect in the cervical portion; the surface of this tumour was smooth and firm; it lay beneath the dura mater, and was attached to it chiefly by small vessels. The tumour was a fibro-sarcoma.

The PRESIDENT said that it seemed to agree with most cases of tumour of the spinal cord, inasmuch as the nerves were first affected, and then the function of the cord was abolished by the pressure.

Mr. BUTLIN, speaking as a surgeon, suggested whether such tumours as these, if they gave evidence by such distinct symptoms of their existence, might not be removed by an operation.

The PRESIDENT observed that there was hardly a vital organ which surgeons would not touch nowadays.

ASYMMETRY OF SKELETON AND BRAIN.

Mr. PEARCE GOULD showed the skeleton of a woman, aged twenty-four, illustrating lateral asymmetry. The specimens were from the Westminster Hospital Museum, and no history of value could be attached to them. They consisted of the skull, which was markedly larger on the left than on the right side; the fossæ, sinuses, and foramina were larger and the bones thicker on that side; further, the roof of the orbit, the root of the great wing of the sphenoid, and the tympanic plate were greatly thickened on the left side. There were two exostoses on the left side, one just above the nose, the other at the extremity of the alveolar process. On the inner surface of the left part of the dura mater were several small rounded bony growths. The left side of the lower jaw was much larger and thicker than the right, and the tongue and hyoid bone were also larger on the left than on the right side. The bones of the upper extremity were larger on the right side, but there was unusual thickening of the lower end of the left humerus and the upper end of the left radius and ulna. The left femur was longer and much larger, and more nodulated and irregular than the right. Attached to the left patella was a bony tumour the size of an orange. The spine was very irregular, most the vertebrae being more or less deformed. There was a lateral curve in the neck, convex to the left, and another in the loins, convex to the right, entirely produced by asymmetry of the bodies of the vertebrae. Some of the vertebrae were ankylosed together, and the uniting material was more abundant on the left than on the right side. The left hemisphere of the cerebrum and cerebellum, and the corpus striatum, optic thalamus, and corpora quadrigemina, were larger than the corresponding parts on the opposite side; but the right side of the medulla oblongata and the right olivary body were larger than the left. Mr. Pearce Gould pointed out that in the head the left side was characterised by increased size, by bony thickenings at certain points, and by exostoses; in the upper limbs, the bones on the right side were longer, but the tendency to bony thickening was found on the left side; in the lower limb there was again greater length, greater thickness of bone, and a bony tumour,

all on the left side. In the spine the deformity was very irregular.

In reply to Mr. Butlin, Mr. GOULD said that he could not offer any satisfactory explanation of the occurrence of this condition; but he believed the asymmetry was certainly due to hypertrophy of the one side, which was manifestly deformed, and not to atrophy of the other.

CALCIFIED BRONCHOCELE UNDERGOING SPONTANEOUS NECROSIS.

Mr. JONATHAN HUTCHINSON showed a patient who presented a sinus leading down to a calcified mass, evidently the right lobe of the thyroid gland. He had been the subject of bronchocele from early youth, and the calcification occurred in middle life; a probe passed along the sinus grated against calcareous matter as hard as bone. Mr. Hutchinson had never seen a case of this kind before; he had met with calcification of a bronchocele, but had never before known the calcified tumour to necrose.

ANEURISM OF AORTA CAUSING BILATERAL PARALYSIS OF VOCAL CORDS.

Dr. WHIPHAM, who exhibited this specimen, said that the patient, a tailor, aged fifty-five, was admitted into St. George's Hospital under his care on February 17, 1882. There was a history of considerable alcoholic excess, but, as far as could be learned, the man had never suffered from syphilis. About two months before his admission he was attacked by a constant hacking cough, which was paroxysmal, and was followed by copious watery expectoration. He also experienced aching pain in the thorax and epigastrium, but the position of the pain was ill defined. On admission the patient was suffering from dyspnoea; his respirations were 20, laborious, and accompanied by a strident, rattling noise in the throat; the cough was frequent and hard; the expectoration white and frothy. The lungs were emphysematous, and the area of cardiac dulness was inappreciable; loud wheezing and crepitant sounds were audible throughout the chest. No cardiac or other bruit was detected in front, but a systolic murmur was recognised between the scapulæ. The voice was fairly resonant. The laryngoscope showed complete paralysis of the abductors of both vocal cords; during ordinary inspiration the cords approached one another, while in deep inspiration they came almost into contact. In phonation they were normally adducted. After the patient had been in hospital for five or six hours the dyspnoea became so urgent that tracheotomy was performed, but without any relief to the symptoms, and the patient died two hours later. At the post-mortem examination the lungs were found to be emphysematous, and in the apex of the right was a small cavity containing foetid dark-green pus and disorganised lung-tissue. The kidneys were congested, with diminished cortices. The heart was somewhat hypertrophied. The aorta was atheromatous. From the back of the descending portion of the arch arose an aneurism of about the size of the closed fist. The sac extended behind the trachea, and was adherent to the ribs on each side of the vertebral column. It pressed upon the trachealis muscle, and almost obliterated the channel of the windpipe just above its bifurcation. The left recurrent nerve was adherent to the sac, was flattened and more or less atrophied. The right recurrent nerve was apparently natural, and lay at some considerable distance from the aneurism; and, so far as could be made out, had not been in any degree subjected to pressure. The aneurism, however, by its position behind the trachea, had caused that structure to compress the cardiac plexus between it and the aorta. On the admission of the patient, the "brassy" cough suggested an examination with the laryngoscope; and it was then found that the abductors of the vocal cords were completely paralysed, and that in deep inspiration the cords approached one another. The voice was at this time resonant, and the laryngoscope showed that adduction was equally and efficiently performed on both sides. Later in the day, when the dyspnoea (from which the patient suffered when first admitted into hospital) had to some extent subsided, Dr. Myers, the medical registrar, examined him, and found that his voice had become very hoarse, from which it may be inferred that the adductors had then become involved in the paralysis. Two similar cases are recorded in the *Pathological Society's Transactions* by Drs. Bäumlér and George Johnson (vols. xxiii. and xxiv.);

but in these cases there is no note of any pressure on the cardiac plexus.

Mr. WALSHAM wished to know whether a careful search had been made for the laryngo-tracheal glands which had been recently described as lying between the larynx and trachea. Was Dr. Whipham quite certain that there were no glands pressing on the nerve?

Mr. SUTTON was rather inclined to think that the paralysis might have been produced by transmission of some irritation to the centres in the medulla.

DISSEMINATED POLYPI OF RECTUM.

Mr. HARRISON CRIPPS showed microscopical sections from two cases of this disease. The patients were a brother and sister, aged nineteen and seventeen years respectively. In both cases the symptoms were first noticed at about ten years of age; they consisted of hæmorrhage from the anus, and the protrusion of bleeding masses after defæcation. Examination of the rectum revealed numerous small, distinct polypoid growths. Though polypus of the rectum was not at all a rare disease, yet instances of such wide dissemination of the disease had not been recorded in any of the standard works on disease of the rectum, and he only knew of one specimen in the London museums. Histologically the polypi consisted of a central stalk of fibrous tissue (continuous with the submucous tissue), which divided and subdivided, its ultimate branches being covered by a single layer of columnar epithelial cells; this fibrous network containing in its masses numerous lymphoid cells. These bodies were undistinguishable from bodies (nuclei) seen within the epithelial cells; and Mr. Cripps reiterated his opinion, expressed at a former meeting of the Society, that the lymphoid cells of the submucous tissue were in great measure derived from the columnar epithelial cells—that the lymphoid cells were in reality the young brood of the epithelium resulting from the division of the nuclei.

ULCERATIVE ENDOCARDITIS.

Dr. STEPHEN MACKENZIE presented a remarkable specimen of ulceration, starting from the endocardium and extending through the whole muscular substance of the heart. It appeared that the patient, who only survived his admission into the London Hospital two days, had not been ill long; he presented symptoms of pericarditis, but no local or general symptoms which pointed to the condition found after death. At the post-mortem examination the cardiac valves were found free from disease, but in the pericardium was bloody fluid, and near the apex of the heart was a small aperture; on opening the heart there was seen to be the extremity of a somewhat funnel-shaped ulceration near the apex; the endocardium near the ulcer appeared white and fibroid; and Dr. Mackenzie supposed that the ulceration had taken place in the site of a fibroid thickening.

ULCERATION OF LARGE INTESTINE.

Dr. STEPHEN MACKENZIE said that the patient from whom the specimen was removed was a woman who had died from well-marked typhoid fever; the mucous membrane of the large intestine was ulcerated so extensively as to present a honeycombed appearance. This was produced, he supposed, by very extensive destruction of the solitary glands.

(?) EPIDEMIC CEREBRO-SPINAL MENINGITIS.

Dr. CARRINGTON said that the patient was a child, who presented well-marked symptoms of cerebral and spinal meningitis. The post-mortem examination revealed a copious deposit of lymph over the convex aspect of the brain, and also at the base; there was no evidence of tubercle. He believed it to be a sporadic case of epidemic cerebro-spinal meningitis.

Dr. PAYNE would hesitate to call such cases as these epidemic cerebro-spinal meningitis, for the pathological conditions described as occurring in that disease differed as a whole from anything he had met with in these cases.

The PRESIDENT thought that cases of cerebro-spinal meningitis did occur which were quite peculiar; one case he particularly remembered, where the child was ill for several weeks, which was unlike non-specific meningitis, and where the eyeball was totally destroyed by suppuration; this was a symptom described as occurring in true epidemic cerebro-spinal meningitis; and altogether he had felt no hesitation in diagnosing that disease in this particular case.

Dr. STEPHEN MACKENZIE pointed out that the crucial test must be the communicability of the disease; and, though he had seen numerous cases of cerebro-spinal meningitis, he had never known the disease communicated.

Dr. DOUGLAS POWELL inquired whether there was any history resembling rheumatism; in one case of this kind, which he had seen, the symptoms yielded to treatment directed against the rheumatic pains.

Dr. DICKINSON was familiar with a form of meningitis, which was not tubercular disease, and which had for its most marked symptom retraction of the head; but he did not regard this as epidemic.

Mr. PARKER wished to know whether there was any injury in this case; he had seen several cases of a disease which presented many of the characters of tubercular meningitis, in which, post-mortem, however, no tubercle was found.

CARD SPECIMENS.

Dr. LEDIARD—1. Residual Abscess of Posterior Fossa of Base of Skull. 2. Old Partial Dislocation of the Ankle backwards.

Dr. SAMUEL WEST—1. Contraction of Aortic Valves. 2. Obliteration of the Orifices of one Coronary Artery by Atheroma, and narrowing of the mouth of the other. 3. Calcification of two Aortic Valves, Rupture of the third. 4. Obliteration of Left Ureter by a Fibrous Band, with Secondary Atrophy of the Kidney, and Hypertrophy of its fellow.

Dr. HALE WHITE—Suppuration around a Healthy Kidney following Stricture and Abscess in the Prostate. Edema of the Vocal Cord secondary to Aneurism of Ascending Arch of Aorta.

THE HARVEIAN SOCIETY OF LONDON.

THURSDAY, APRIL 27.

WILLIAM HICKMAN, M.B., F.R.C.S., in the Chair.

TREATMENT OF SEVERE ACNE ROSACEA BY SCARIFICATION.

Mr. MALCOLM MORRIS gave a short account of the treatment of severe acne rosacea by scarification. He pointed out that under the term "acne rosacea" there were two classes of cases—the one consisted of acne spots surrounded by red patches, the nose being considerably enlarged from hypertrophy of the tissues; in the other, there was flushing of the nose, erythema, a varicose condition of the veins, and hypertrophy with acne. In the latter class of cases Mr. Morris advocated scarification. This condition of nose occurred in persons of feeble circulation, whose hands were generally cold, and who were easily affected by changes of temperature: in a hot room the nose itched and caused great discomfort; when exposed to cold there was intense pain. Mr. Morris performed the scarification by first of all filling the nostrils with cotton-wool and making the skin tense. Then he slit up all the bloodvessels that could be seen on the nose, throughout their length, by a knife, the extremity of which was sharp on both edges; and next, by an instrument which had a number of fine blades set close together, he thoroughly divided the vessels transversely. Free hæmorrhage followed, which was beneficial, and therefore encouraged. The clots and serum were absorbed with blotting-paper, and the patient was told not to touch the nose for several days. In a few days the scarifications all healed, no scars being left. This operation was to be repeated a number of times—seven, eight, or more—until the nose was reduced to a normal size. Mr. Morris had scarified in twenty-eight cases successfully; one which he did in 1879 has remained well ever since. He considered that by destruction of the vessels resolution of the hypertrophied tissues was obtained.

Mr. POWER inquired if there was any general diathesis in these cases—any gout.

Dr. ROYSTON asked if acne of the face could be similarly treated.

Mr. MALCOLM MORRIS, in reply, stated that there was no special diathesis or connexion with gout. Acne could not be treated by scarification.

THE ETIOLOGY, DIAGNOSIS, PROGNOSIS, AND TREATMENT OF RÖTHELN.

Mr. H. CRIPPS LAWRENCE then read a paper on Rötheln, confining his attention to remarks upon the etiology, diagnosis, prognosis, and treatment of the disease. The etiology of Rötheln has been a subject of much diversity of opinion; and, after referring to the opinion held by several of the foremost of professional minds on the subject, the author expressed a concurrence with the views held by Hildebrand and Schönlein, who recognised the origin of Rötheln *de novo*, due either "to an infecting agent of a special nature generated outside the organism during the simultaneous prevalence of epidemics of measles and scarlet fever," or "to a simultaneous infection with both contagions." Special reference was made to the researches of Dr. Cheadle on Rötheln. The chief points of diagnosis were then discussed with regard to the temperature, enlargement of the cervical and other glands, and desquamation, as aiding the differential diagnosis between Rötheln and its congeners, measles and scarlet fever. In referring to prognosis, the author dwelt upon the necessity of realising that Rötheln may assume a form "of considerable severity," a "dangerous and even a malignant type," attended by sequelæ which, if not necessarily dangerous, may seriously retard convalescence. Rötheln was autogenetic. In conclusion, when discussing the treatment of Rötheln, Mr. Lawrence noted that authors paid it as scant an attention as they did to the subject of prognosis. The author advocated the reduction of the pyrexia and development of the eruption as speedily as possible by the use of the warm bath and diffusible stimulants. He considered chlorate of potash and nitric ether valuable adjuncts. Purgatives given early hindered the development of the eruption. Quarantine was necessary as regards infection; but the part played by desquamation in propagating Rötheln by "contagion" the author considered *sub judice*.

A discussion was carried on by Mr. Power, Mr. Malcolm Morris, Mr. Rayner, Dr. Royston, who treated cases with carbonate of ammonia and chloric ether; Mr. W. H. Evans, and Mr. Lamb, who had found the period of incubation in two cases twelve, and in another fourteen days.

Mr. LAWRENCE replied, and the meeting adjourned.

BELGIUM PRIZE QUESTIONS.—The Royal Academy of Medicine of Belgium offers the following prizes:—1. "Indicate the part played by animated germs in the etiology of disease, illustrating by new experiments"; a medal of 2000 fr.; open until January 1, 1883. 2. "Determine, by new experiments and new applications, the degree of utility of spectrum analysis in researches in legal medicine and medical police"; 1200 fr.; December 31, 1882. 3. "Determine, supported by precise observations, the effects of alcoholism in a material and a psychical point of view upon individuals and their descendants": it is to be understood that the candidates, while treating on the psychical effects of alcoholism, will have to appreciate (availing themselves of the conclusions drawn from pathological anatomy and the best documents furnished by medico-legal investigations) the limit which separates drunkenness from insanity, and the responsibility of the drunkard for any acts of which he is the author; 1500 fr.; February 15, 1883. 4. "Elucidate by clinical facts, and, if necessary, by experiment, the pathogeny and therapeutics of diseases of the nervous centres—principally epilepsy; 8000 fr.; December 31, 1883. Those failing to obtain this prize may still receive "encouragements" varying from 300 to 1000 fr.; moreover, a sum of 25,000 fr. will be awarded to any author who realises real progress in the therapeutics of disease of the nervous centres—for example, in discovering a cure for epilepsy. 5. "Hysterotomy and its applications"; 800 fr.; February 1, 1884. 6. "A comparative investigation of tuberculosis in all the domestic animals in the fourfold relation of causes, symptoms, lesions, and treatment: the relations to be brought out which exist between the tuberculosis of man and cattle, and the consequences which may result to the health of man from the consumption of the meat or milk of cattle suffering from tuberculosis"; the replies to this question to be based not only on acquired facts and experiments, but also on new researches; 800 fr.; February 1, 1884.—*Union Méd.*, May 11.

OBITUARY.

JOHN KING FORREST, F.R.C.S.I.,

DIED at his residence, 13, Clare-street, Dublin, on Monday, April 17, after a few days' illness. The deceased was a native of Cork, and after he became qualified he took charge of the cholera hospital in that city, devoting himself with much ardour to the trying and dangerous duties of the post. Forrest became a Fellow of the Royal College of Surgeons in Ireland in 1844, and a Licentiate of the King and Queen's College of Physicians in 1859. He was in due time appointed a Lecturer on Anatomy in the original School of Medicine and Surgery, Peter-street, Dublin; but from this appointment he retired many years ago. He was Surgeon to Jervis-street Hospital, where he laboured for a number of years in the cause of surgical science.

JOHN HUGHES, F.R.C.S.I., L.K. & Q.C.P.

THIS gentleman died suddenly at his residence, Merrion-square East, Dublin, on the morning of Friday, May 5. Dr. Hughes had been in indifferent health for some time, but was able to attend to his professional duties up to the day of his death. On the morning of that day he arose as usual, but while dressing he was attacked with pain in the region of the heart, and died within a quarter of an hour. His age was about sixty-five years.

Dr. Hughes became a Licentiate of the Royal College of Surgeons in Ireland in 1842, and a Licentiate of the King and Queen's College of Physicians in 1845. In 1874 he proceeded to the Fellowship of the College of Surgeons. Among his earlier professional appointments was that of Physician to Jervis-street Hospital. This he resigned when the Mater Misericordiæ Hospital in Eccles-street was opened in the year 1861. Of this latter institution he was the Senior Physician at the time of his death.

He also was Visiting Physician to the Central Lunatic Asylum, Dundrum, co. Dublin, and to the Richmond Lunatic Asylum, Dublin. Lastly, he was Consulting Physician to the Royal College of St. Patrick, Maynooth.

Dr. Hughes was by no means a prolific writer, but he made various communications to the *Dublin Journal of Medical Science* and to the *Medical Press and Circular*.

INCONTINENCE OF URINE IN CHILDREN.—At the Bellevue Hospital, New York, the combination of ergot, belladonna, and iodide of iron proves more useful than either of these drugs given alone, or than any other combination which has been tried.—*New York Med. Record*, March 11.

EDUCATION OF MEDICAL WOMEN AT HARVARD UNIVERSITY.—This question having been recently agitated again, the Medical Faculty of Harvard has, by a majority of eighteen to two, protested against the introduction of women into the Medical Faculty of this University. They state that they have been of late laboriously and successfully engaged in raising the standard of medical education there, and that their time is fully employed, while they fear that the "addition of a mass of women to the students would probably result either in damaging the machinery of the school, or that the standard of the school and of medical education would have to be lowered to the capacity of the many." This protest was made in answer to a request for the opinion of the Faculty demanded by the governing authorities of the University. In compliance with the opinion of the Faculty, the "Board of Overseers," by a majority of twelve to eleven, have passed a resolution that the introduction of women is not advisable. This resolution, however, is only advisory, not final, the ultimate decision resting with the "Corporation," consisting of seven persons.—*Phil. Med. News*, April 29.

THE POPULATION OF PARIS.—Dr. Bertillon states in his last registration return that the last rectifications of the census returns for 1881 bring the population of Paris to 2,239,928. Its increase during five years has therefore been 251,122, or a mean annual augmentation during 1877-1881 of 50,225. The increase returned by the preceding census was but 137,014, giving a mean annual increase of 34,253 for the years 1872-1876.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

—At the usual monthly examinations for the licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, May 8, 9, 10, and 11, the following candidates were successful:—

For the Licence to practise Medicine—

Byrne, George Valentine, Bray, co. Wicklow.
Cashel, Edward Baldwin, Dublin.
Doyle, Joseph Ignatius Purcell, Dublin.
Moore, Frederic Hone, Cootehill, co. Cavan.

For the Licence to practise Midwifery—

Byrne, George Valentine. | Macaulay, Samuel, Belfast.
Cashel, Edward Baldwin. | Moore, Frederic Hone.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership, in accordance with the provisions of the Supplemental Charter of December, 12, 1878, have been duly enrolled Members of the College:—

Maturin, Leslie, 1875, Dublin.
Cox, Michael Francis, 1877, Dublin.
Nicholson, Joseph John, 1877, Exeter.

(The numerals appended to the names indicate the year in which the Licence in Medicine of the College was obtained.)

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 11th inst., and when eligible will be admitted to the Pass Examination, viz.:—

Alexander, Sidney R., student of Guy's Hospital.
Barnett, Frank S., of St. Bartholomew's Hospital.
Beale, Thomas M., of St. Bartholomew's Hospital.
Bowden, Reginald T., of St. Bartholomew's Hospital.
Elkington, Henry P. G., of St. George's Hospital.
Harvey, Frank, of the Middlesex Hospital.
Kelson, William H., of the London Hospital.
Morgan, Thomas W., of the London Hospital.
Musson, William E. C., of St. Bartholomew's Hospital.
Scatliff, Philip M., of St. George's Hospital.

Ten candidates were rejected. The following gentlemen passed on the 12th inst., viz.:—

Alderson, E. Kynaston, student of Guy's Hospital.
Bury, Herbert T., of University College Hospital.
Davis, E. S. Stone, of St. Bartholomew's Hospital.
Emery, John, of Guy's Hospital.
Fetherstonhaugh, Robert T., of St. Bartholomew's Hospital.
James, John, of the London Hospital.
Jaynes, Frederick J., of the Middlesex Hospital.
Lovell, H. Haynes, of St. Mary's Hospital.
McArthur, Duncan, of University College Hospital.
Mawby, Frank W., of Guy's Hospital.
Morison, Frederick W., of St. Bartholomew's Hospital.
Noad, Ernest, of St. Bartholomew's Hospital.
Stevens, H. G. Lewis, of the Charing-cross Hospital.
Thornton, Francis H., of St. Bartholomew's Hospital.
Verdon, Frank, of King's College Hospital.
Wise, Walter, of the Middlesex Hospital.

Twelve candidates were rejected. The following gentlemen passed on the 13th inst., viz.:—

Bell, William H., student of St. Bartholomew's Hospital.
Cresswell, George, of the Westminster Hospital.
Crosby, Herbert T., of St. Thomas's Hospital.
Datta, Dina N. P., of King's College Hospital.
Fisher, Henry H., of St. Bartholomew's Hospital.
Hope, A. W., of St. Bartholomew's Hospital.
Humphreys, Francis R., of Guy's Hospital.
Robbs, Charles E., of St. Bartholomew's Hospital.
Sheppard, Edward J., of University College Hospital.
Vaughan, Edward, of St. Bartholomew's Hospital.

Five candidates were rejected. With this meeting the Primary Examinations were brought to a close, and out of the 167 candidates examined, no less than 64, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including six who had an additional three months. One candidate having been detected seeking extraneous assistance, was expelled, and ordered not to offer himself for re-examination until the expiration of six months.

The following gentlemen, having undergone the necessary examinations, were admitted Members of the College at a meeting of the Court of Examiners on the 15th inst., viz.:—

Anderson, Daniel E., L.S.A., Mauritius.
Banerjee, Mahendra N., L.S.A., Calcutta.
Cadman, Arthur W., L.K. & Q.C.P. Ire., Spondon, Derby.
Case, William, L.S.A., Wells, Norfolk.
Dearden, John W., L.R.C.P. Edin., Lowmoor, near Bradford.
Jones, John, L.S.A., Euston-road.

Kenny, Frederick H., L.S.A., Norwich.
Lipscomb, Arthur A., L.S.A., Forest Hill.
McDougall, Herbert A. H., L.R.C.P. Edin., Winchester.
McMillan, John F., L.S.A., St. John's Wood.
Russell, Michael W., L.S.A., Aberdare, Wales.
Scarth, Isaac, L.S.A., Stanghow, Yorkshire.
Sinclair, John, L.S.A., Kingsclere, Berks.
Stoker, George, L.K. & Q.C.P. Ire., Cheyne Walk.
Watson, John C., M.B. Aber., Sunderland.

Nine candidates were rejected. The following gentlemen were admitted on the 16th inst., viz.:—

Clegg, Joseph, Manchester.
Collyns, Robert J., Moretonhampstead.
Davies, William, Llechwedd, Aberystwith.
Hopkins, John W., Leeds.
Moreton, John S., Tavnin, near Chester.
Wheatly, Arthur W., Brailes, Warwickshire.

Fourteen candidates were rejected. The following gentlemen were admitted on the 17th inst., viz.:—

Allen, Frank J., B.A. Cantab., Shepton Mallet.
Aslett, G. Stratton, L.R.C.P. Edin., Oaklands, near Carmarthen.
Berry, H. Poole, Amwell-street, E.C.
Booth, John H., Chesterfield.
Buckell, William R., Romsey, Hants.
Corner, Edward, L.R.C.P. Edin., Bath.
Fox, Robert F., L.S.A., Stoke Newington.
Green, George R., L.R.C.P. Edin., Modbury, Devon.
Hosker, J. Atkinson, Dalston.
Hubbard, Frederick E., Margate.
Knowles, Herbert W., St. Helen's, Lancashire.
Martin, Sidney H. C., Kingston, Jamaica.
Phillips, H. Astley, L.S.A., Leinster-square, W.
Skeete, F. de Courcy, Barbadoes.
Sloggett, H. Maxwell, L.R.C.P. Edin., Godalming.
Walker, John W., Wakefield.
Waugh, Henry D., Stockwell.
Wilkin, Loftus R., L.K. & Q.C.P. Ire., Dublin.
Williams, R. D. Delahaye, Llanedy, near Carmarthen.

Twelve candidates were rejected.

The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the ninety-seven candidates for the diploma of Membership of the College on the 12th inst., when they were required to answer at least four, including one of the first two, out of the six questions, from 1.30 to 4.30 p.m., viz.:—1. Mention the different methods in use for excision of the entire tongue, and name, in order, the parts divided in each. 2. Describe the course, relations, and distribution of the internal pudic artery, and state under what circumstances the trunk of this vessel may be wounded. 3. What measures may become necessary in a case of retention of urine consequent on a severe contusion of the perineum? 4. State the usual causes of senile gangrene. Describe its symptoms and course, and give the treatment you would adopt in different cases. 5. What is meant by collapse? Give its usual causes, the symptoms of its various stages, and the treatment which is indicated in different circumstances. 6. State fully how you would investigate a case of deafness with the object of determining in what part of the auditory apparatus its cause is seated. On the following day, from 12.30 to 2 p.m., the candidates were required to answer three out of the four following questions on Midwifery and Diseases of Women, viz.:—1. Describe the mechanism of labour with the vertex presenting, and the occiput directed backward and to the right. 2. What are the pathological conditions with which puerperal eclampsia is commonly associated? How would you treat it? and what points would guide you in forming a prognosis? 3. Mention the conditions which call for turning by the feet. How would you perform this operation? 4. In what ways do fibroid tumours of the uterus endanger life? For what conditions may such tumours be mistaken, and how would you make a diagnosis? The following were the questions on the Principles and Practice of Medicine, when the candidates were required to answer three (including No. 4) out of the four questions, from 2.30 to 4.30 p.m., viz.:—1. Describe the symptoms and course of a typical case of scarlatina? How is the disease propagated? Enumerate its chief varieties, complications, and sequelæ; and give an outline of its treatment. 2. Give the physical signs of the following conditions:—a. Left pleuritic effusion. b. Double mitral disease. c. Cancer of the liver. d. Ascites. 3. Briefly describe the varieties of chronic Bright's disease, with reference to their pathology, leading symptoms, and treatment. 4. Give the actions, uses, and doses of the following drugs:—Sulphur, tincture of perchloride of iron, bicarbonate of soda, bromide of potassium, sulphate of zinc, morphia, compound kino powder, elaterium, strychnia, tincture of hyoscyamus, Calabar bean.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 11:—

Dyson, Herbert Jekyl, 19, Tyndale-place, Islington, N.
Fox, Robert Fortescue, Lordship-terrace, Stoke Newington.
Jones, Owen Clayton, 48, Philpot-street, E.
Potts, Walter Alfred Beevor, Amersham, Bucks.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Carter, Arthur Joseph, Guy's Hospital.
Munckton, Alfred, University College.
Thomas, Arthur William G., Charing-cross Hospital.
White, Thomas Harry, St. Bartholomew's Hospital.

BIRTHS.

BALL.—On May 16, at Albemarle Villa, Staines-road, Hounslow, the wife of William Montague Ball, M.B., of a daughter.
EMERSON.—On May 12, at 4, Park-side, Cambridge, the wife of P. H. Emerson, M.R.C.S., of Clare College, of a son.
MAXWELL.—On May 11, at Lasswade, the wife of C. M. Maxwell, M.B., of a daughter.
SHUTTLEWORTH.—On May 14, at Lancaster, the wife of G. E. Shuttleworth, M.D., Medical Superintendent, Royal Albert Asylum, of a son.
WHITE.—On May 13, at Belmont, Wadhurst, Sussex, the wife of William Robert White, M.D., of a son.
WILKINS.—On May 10, at Castlehold, Newport, Isle of Wight, the wife of Robert Bird Wilkins, M.R.C.S., of a son.

MARRIAGES.

HARTLEY—NESS.—On May 11, at Norton, James Hartley, L.R.C.P., L.R.C.S., to Amy Macdonald, second daughter of the late Rev. Henry Cooper, rector of Nunington, and widow of the late John Ness, Esq., F.R.C.S., of Helmsley, Yorkshire.
JARVIS—LOCKHART.—On April 20, at Kensington, J. T. Jarvis, Esq., C.E., of Ladbrooke-square, W., to Lucy Catherine, daughter of William Lockhart, F.R.C.S., of Granville Park, Blackheath.

DEATHS.

BROWN, JOHN, M.D., LL.D., at 23, Rutland-street, Edinburgh, on May 11. in his 72nd year.
COMRIE, PETER, Staff Surgeon R.N. (retired), at Torquay, on May 9.
CORMACK, Sir JOHN ROSE, M.D., Physician to the British Hertford Hospital, at 364, Rue St. Honoré, Paris, on May 13.
FREEMAN, THOMAS ANTHONY, M.R.C.S., L.S.A., at 40, Hova-villas, West Brighton, on May 11.
NORTH, JOHN CUNNINGHAM, M.B., C.M. Edin., at Horsemenden, Kent, on May 11, aged 34.
THORNTON, DANIEL, Surgeon-Major, Army Medical Department, at the Royal Victoria Hospital, Netley, on May 7.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRISTOL FORESTERS' DISPENSARY.—Medical Practitioner. Candidates must be duly qualified, and will be required to assist the Senior Surgeon in visiting and prescribing. Testimonials, with applications, to be sent to the Secretary, E. S. Burgess, 34, Horfield-road, Kingsdown, Bristol, on or before May 23.

BUCKINGHAMSHIRE GENERAL INFIRMARY, AYLESBURY.—Resident Surgeon and Apothecary. (For particulars see Advertisement.)

CHELSEA HOSPITAL FOR WOMEN.—Two Physicians and Assistant-Physician. (For particulars see Advertisement.)

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET, LONDON, W.C.—Junior Resident Medical Officer. (For particulars see Advertisement.)

LANCASTER INFIRMARY AND DISPENSARY.—House-Surgeon. (For particulars see Advertisement.)

LEITH HOSPITAL.—Assistant-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to be sent to the Secretary, George V. Mann, 33, Bernard-street, Leith (from whom all information can be obtained), by June 8.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Junior Resident Medical Officer. (For particulars see Advertisement.)

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—House-Surgeon. Candidates must be medical graduates of a University, or members of a College of Surgeons of the United Kingdom, registered, and unmarried. Applications, with testimonials, etc., to be addressed to the Chairman of the Committee, Vicarage, Portsmouth, on or before May 25.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bolton Union.—Mr. James Barr, Assistant Resident Medical Officer at the Workhouse, has resigned: salary £150 per annum.

Easingwold Union.—Mr. James Frederick Witz has resigned the Coxwold District: area 13,499; population 1771; salary £26 per annum.

Hereford Union.—Mr. James Cliefe Lane has resigned the Burghill District: area 21,999; population 6468; salary £95 per annum.

APPOINTMENTS.

Cardiff Union.—Frederick William Evans, M.D. and C.M. Aber., M.R.C.S. Eng., L.S.A. Lond., to the Cardiff North District.

Easingwold Union.—John McCracken, M.B. and C.M. Glasg., to the Workhouse.

Samford Union.—William Binns, L.R.C.P. Edin., L.F.P.&S. Glasg., to the Chapel District.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—There have this session been eight new entries for the full course of the College, making the total entries of full students for the year thirty-nine. There have been six new entries for part of the curriculum, making a total of forty students who have this year entered there for the degrees in Medicine.

ROYAL COLLEGE OF PHYSICIANS.—Dr. Meymott Tidy, Professor of Chemistry and of Forensic Medicine at the London Hospital, has been appointed, on the nomination of the President of the Royal College of Surgeons, Scientific Analyst to the Home Office in cases of poisoning, jointly with Dr. Stevenson, of Guy's Hospital, nominated by the President of the College of Physicians.

APPOINTMENTS FOR THE WEEK.

May 20. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Professor D. Masson, "On Poetry and its Literary Forms."

22. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

23. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Professor A. Gamgee, "On Digestion." ANTHROPOLOGICAL INSTITUTE (4, Grosvenor-gardens), 8½ p.m. Sir H. Bartle Frere, "On Systems of Land Tenure in Different Countries."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. T. Holmes, "On Thyrotomy for the Removal of Foreign Bodies impacted in the Interior of the Thyroid Cartilage." Dr. Felix Semon, "On Two Cases of Laryngeal Growths in which the Neoplasms were Successfully Removed by Endo-Laryngeal Operations with the aid of the Galvano-Cautic Method." Mr. Watson Cheyne and Mr. E. M. Nelson will exhibit Koch's Specimens of the Bacilli of Tubercle, etc.

24. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Douglas Powell.

25. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Dewar, "On the Metals."

HARVEIAN SOCIETY, 9 p.m. Mr. Osman Vincent, "On Cases of Hysterical Spine." Mr. G. Eastes, "On Physiological Rest in the Treatment of Medical Cases."

26. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Sir Henry S. Maine, "On the Sacred Laws of the Hindus."

CLINICAL SOCIETY OF LONDON, 8½ p.m. Report of Committee upon Hyperpyrexia in Acute Rheumatism. Dr. Greenhow, "On Cases of Rheumatic Fever treated with Iodide of Potassium and Sulphate of Quinine." Dr. Crocker, "On a Case of Prurigo of Hebra." Dr. B. O'Connor, "On Cases of Ichthyosis involving the Entire Surface of the Body" (patients shown). Mr. Golding Bird, "On a Case of Congenital Hernia in the Adult; Radical Cure after Kelotomy." Dr. S. Mackenzie, "On a Case of Lupus Psoriasis." Dr. Churton (of Leeds), "Sequel to a Case of Double Hæmorrhagic Pleurisy with formation of Cholesterine." Mr. Walsham will show a Case of Excision of the Wrist. Dr. Althaus will show a Case of Cerebro-Spinal Syphilis.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 13, 1882.

BIRTHS.

Births of Boys, 1305; Girls, 1264; Total, 2569.
Corrected weekly average in the 10 years 1872-81, 2621·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	705	728	1433
Weekly average of the ten years 1872-81, } corrected to increased population ...	803·3	741·6	1544·9
Deaths of people aged 80 and upwards ...	...	...	55

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric(or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West	669633	...	5	3	...	18	...	1	...	2
North	905947	...	6	6	1	35	...	...	...	2
Central	282238	...	4	...	4	8	...	4	1	2
East	692738	2	3	11	2	24	...	1	...	3
South	1265927	8	29	6	6	39	...	1	...	5
Total	3816483	10	47	26	13	124	...	7	1	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	...	30·032 in.
Mean temperature ... ..	...	...	...	...	...	...	53·7°
Highest point of thermometer ... ..	...	...	...	...	...	...	71·6°
Lowest point of thermometer ... ..	...	...	...	...	...	...	37·4°
Mean dew-point temperature ... ..	...	...	...	...	...	...	44·5°
General direction of wind ... ..	...	...	...	...	...	...	Variable.
Whole amount of rain in the week ... ..	...	...	...	...	...	...	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 13, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending May 13.	Deaths Registered during the week ending May 13.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London	3893272	2569	1433	19·2	71·6	37·4	53·7	12·03	0·00	0·00
Brighton	109595	48	37	17·6	66·0	40·0	52·1	11·17	0·15	0·33
Portsmouth	129916	86	71	28·5	...	...	...	...	...	...
Norwich	83821	54	33	19·4	...	...	...	...	...	...
Plymouth	74449	45	34	23·8	65·0	39·8	52·7	11·50	0·00	0·00
Bristol	210134	136	88	21·9	68·0	37·2	51·3	10·73	0·05	0·13
Wolverhampton	76756	52	40	27·2	68·1	33·6	49·0	9·44	0·06	0·15
Birmingham	408532	237	143	18·3	...	...	...	...	...	...
Leicester	126275	86	42	17·4	66·5	37·0	50·4	10·22	0·94	2·39
Nottingham	193573	156	88	23·7	74·8	34·3	51·6	10·90	0·23	0·58
Derby	83587	63	17	10·6	...	...	...	...	...	...
Birkenhead	86592	65	27	16·3	...	...	...	...	...	...
Liverpool	560377	428	280	26·1	65·9	41·4	50·0	10·00	0·21	0·53
Bolton	106767	68	73	35·7	64·5	36·2	47·3	8·50	0·97	2·46
Manchester	340211	238	180	27·6	...	...	...	...	...	...
Salford	184004	120	77	21·8	...	...	...	...	...	...
Oldham	115572	94	56	25·3	...	...	...	...	...	...
Blackburn	106460	82	49	24·0	...	...	...	...	...	...
Preston	97656	58	40	21·4	...	...	...	...	...	...
Huddersfield	83418	50	33	20·6	...	...	...	...	...	...
Halifax	74713	38	31	21·6	...	...	...	...	...	...
Bradford	200158	122	91	23·7	64·7	40·1	49·0	9·44	0·03	0·08
Leeds	315998	235	137	22·6	67·0	40·0	49·3	9·61	0·12	0·30
Sheffield	290516	211	132	23·7	67·0	35·5	49·2	9·55	0·13	0·33
Hull	158814	113	60	19·7	...	...	...	...	...	...
Sunderland	119065	114	56	24·5	76·0	37·0	51·8	11·01	1·02	2·59
Newcastle	147626	113	62	21·9	...	...	...	...	...	...
Cardiff	83724	66	28	16·8	...	...	...	...	...	...
For 28 towns	8469571	5797	3438	21·2	76·0	34·3	50·6	10·34	0·30	0·76
Edinburgh	232440	150	101	22·7	60·4	35·6	47·4	8·55	1·26	3·20
Glasgow	514048	388	255	25·9	62·0	37·0	47·7	8·72	0·75	1·90
Dublin	348293	216	236	35·4	61·2	35·4	48·4	9·11	0·41	1·04

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·06 in. The lowest reading was 29·77 in. at the beginning of the week, and the highest 30·25 in. on Tuesday at noon.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

Mr. Marshall, Liverpool.—The money value of the Jacksonian Prize originally was ten guineas; it is now increased to £12 10s. The following is the subject for this prize for the present year, viz., "Wounds and other Injuries of Nerves: their Symptoms, Pathology, and Treatment." The essays must be sent in on or before Saturday, December 30, when essays for the Collegial Triennial Prize must also be sent in.

N. N., Bayswater.—The amount contributed at the annual dinner of the German Hospital last week was £4372.

Responsibility of Sanitary Authorities for Badly Constructed Drains.—An action was tried last week at the Assizes at Leeds, brought by a firm of carpet manufacturers at Halifax, against the Halifax Corporation, for damages for alleged negligence in constructing the drains near their mills, in consequence of which they had sustained damages estimated at between £8000 and £9000. The Judge pointed out that the sewerage system must be properly constructed, and maintained in an efficient state. A verdict was given for the plaintiffs, the damages to be subsequently assessed.

Benevolence.—The late Mr. Edward Pugh, of Wolverhampton and Bilston, has left bequests to the following institutions:—Wolverhampton Eye Infirmary, £1000; Wolverhampton Orphan Asylum, £1000; Wolverhampton and Staffordshire Hospital, £1000; Edgbaston Blind Asylum, £500; Edgbaston Deaf and Dumb Asylum, £500; and the Society for Preventing Cruelty to Animals, £300.

Mr. Timmins.—The following is the arrangement for the remainder of the College lectures:—Professor Gerald Yeo, F.R.C.S., will commence his course of three lectures "On the Relation of Experimental Physiology to Practical Medicine," on the 2nd prox. He will be succeeded on Friday, the 9th, by Professor J. Hutchinson, F.R.C.S., who will deliver six lectures "On Temperament, Idiosyncrasy, and Diathesis in Relation to Surgical Disease." Mr. F. S. Eve, F.R.C.S., the Erasmus Wilson Lecturer, will conclude by giving three lectures "On Cystic Tumours of the Jaws, and on the Etiology of Tumours." These several discourses will be delivered on Mondays, Wednesdays, and Fridays at four o'clock.

Dirty Workshops.—A firm of cigar manufacturers of West Smithfield, and a manufacturing stationer of Cock-lane, Smithfield, have been fined respectively in sums of £10 and 40s. for unlawfully neglecting to limewash and cleanse their workshops as required by the Factories Act. These summonses were taken out by Mr. Lakeman, one of the Inspectors of Factories.

The Brighton Vestry and the Town Council.—At a vestry meeting last week an animated discussion took place on the purchase by the Town Council of Preston Park as a public recreation-ground and park. Ultimately a motion was carried by 136 votes for to only twenty against it, declaring that the purchase of the park was unnecessary, and proposing the appointment of a committee to oppose it by every legal means. The Town Council had made an offer to the owner—Mr. Benett Stanford—for the purchase of the property, which had been accepted. With regard to the opposition thus taken by the Vestry, the General Purposes Committee of the Town Council has adopted a resolution pointing out that the purchase of pleasure-grounds is exclusively delegated to the Town Council, and protesting against any attempt on the part of the Vestry to interfere with the legitimate functions of the Council as the representatives of the burgesses.

Anti-vaccination: Eastbourne.—Last week forty anti-vaccination summonses were heard at the Petty Sessions. In the majority of cases vaccination was ordered, but in some, through informality in the notices, the summonses were dismissed.

A Bad Case of Overcrowding.—The disclosures at an inquest held at North Kensington last week by Dr. Diplock, of overcrowding, and the sanitary conditions under which poor people live, show how sadly sanitary arrangements are neglected, and how the present system of sanitary inspection is altogether inadequate to cope with the exigencies and deplorable consequences to the health, decency, and morality of the people inhabiting such wretched and unwholesome dwellings. The deceased (a child), who with its parents lived in part of a tenement occupied by four other families, had died of suffocation. The tenement was over a mews where stable refuse had accumulated, from which and the defective drains most offensive smells emanated. Dr. Diplock declared that during the whole period he had held the office of coroner he had never had so bad a case of overcrowding before him.

An Unhealthy Prison.—It has been resolved at a town's meeting a Shrewsbury to petition Government to remove the Salop Prison to the suburbs of the borough, because of the frequent prevalence of fever within its walls, and of its general insanitary condition.

The late Mr. Darwin.—It is stated that the inhabitants of Shrewsbury propose to erect a monument to the memory of Charles Darwin, who was a native of the town.

Hospital Paying Patients.—A well-known naval officer and old Arctic explorer writes to a contemporary that, "being all to pieces," he decided on going to the paying-patients' wards at St. Thomas's Hospital, and "laying up" for ten weeks. He says that in the two wards—one for gentlemen and the other for ladies—people who live in bijou residences or chambers may enjoy the benefits included in the excellent hospital arrangements at an almost nominal cost, and he considers he owes his life to the comfort and kindness experienced at the hands of everyone in the Hospital, which advantages he desires to be widely known.

The County Lunatic Asylum, Shrewsbury.—Buildings to provide 230 additional beds are about to be added to this Asylum. The present Asylum is so small that patients have to be sent to Macclesfield, Northampton, and Carmarthen.

Competitor.—We borrowed the "blessing" of competitive examination from the Chinese, the system having existed in the Celestial Empire for hundreds of years. "The system," says a writer, "is as unphilosophic as regards the mind as unwholesome diet and over-exertion are unphilosophic in reference to the body. Mental gorging is as injurious as bodily gluttony, and to force it as a right and useful thing upon the young is to ignore the very first principles of mental hygiene."

Antiquarian.—A charitable institution to prevent the natural small-pox was established at Chester in 1778. The primary object was to promote general inoculation at stated periods. Rules were drawn up, to be observed whenever the small-pox should break out, and rewards were annexed to the observance of them. In the course of several years it was found by various trials that the rules were adequate to stop the contagion of the small-pox when faithfully observed; but the obstinacy of the people, and their rejection of the offer of free inoculation, caused the scheme to be given up.

Immunity of the Chinese from Disease.—The Medical Officer of the State Board of Health of San Francisco has given his testimony as to the effects of residence among the Chinese, which has been laid before the Congress. He states that he never knew any disease or pestilence originating or spreading in the Chinese quarter. He admits that the Chinese live quite close, and attributes their healthy condition and immunity from disease to their frugal life. "They eat," he says, "only what is necessary to live upon. They eat to live, and do not live to eat. They are clean in their habits, and they drink no whisky. I have never seen a drunken Chinaman in my life. They consequently obtain a better resisting power to the attack of disease. They constantly wash themselves and keep themselves and their clothes clean. The death-rate is greater among the whites than among the Chinese—greater with adult white people than with adult Chinamen. There have been no epidemics among them, and there has been less small-pox among them, than among the whites, the ratio of population being allowed."

Proposed New Lunatic Asylum, Wales.—Pending a formal authority from the Secretary of State, the Quarter Sessions at Swansea have resolved to erect a new lunatic asylum at Parc Gwilt. The present Asylum at Bridgend was stated to be full, and in addition to the 640 inmates there were 100 others boarded out. The proposed building would accommodate between three and four hundred, and the cost would be £49,000.

The Workhouse, Gray's-inn-road.—The Local Government Board has forwarded to the Guardians of the Holborn Union an extract from a report made by Major Jordan, assistant inspector, after an inspection of this establishment. The inspector points out very serious sanitary defects of the oakum-picking room, the men's sleeping-wards, and the men's receiving-ward; of the latter he says, "it is not worthy of the name." The Central Authority remark that the question of proper accommodation is one of such primary importance that they must request that its consideration may no longer be deferred. The Guardians have referred the subject to the General Purposes Committee of the Board for consideration.

A Practical Reformer.—An old acquaintance of ours, says a contemporary—a cockney born and bred, who, as all true cockneys should, regards the City as the grandest place in the world in every respect,—has lately set himself the task of removing daily from the footpaths of the City six pieces of orange-peel. If by any chance he fails to fulfil his daily task, he adds the default to the following day, and makes his weekly task complete. He commenced his task some four months ago, and he says that in all that time he has never seen one policeman condescend to so humble an office. He calculates that if every piece of peel he removes averts only one accident, he prevents about 1000 accidents yearly, the orange-peel danger lasting but six months. He observed, with the greatest possible seriousness, "What a pity I was not at Mentone the other day! for if I had been, I should in all probability have saved poor Prince Leopold from his sad accident."

Drowning Fatalities, 1880.—An official return just issued of the number of deaths by drowning in the United Kingdom during 1880 shows that the total was 4044, of whom 3274 were males and 770 females. Of the total, 3025 were cases of persons above twelve years of age, and 1019 of persons of twelve years and under. In rivers or streams the deaths numbered 1516. There were 21 cases of murder, 5 of manslaughter, 471 suicides, 1141 "falling from the land into the water," 153 accidents from "ice and fishing," 426 bathing, and 133 pleasure-boat fatalities. Among the others, 1130 were from "unenumerated causes."

The Tea and Coffee House Movement.—The financial success of the various houses belonging to the Leicester Coffee and Cocoa House Company has been so satisfactory that the Company has resolved to increase its capital from £20,000 to £40,000.

"Better Late than Never."—The first prosecutions in Rochester under the Food and Drugs Act were instituted by the Town Council last week. A man was fined 20s. for selling whisky adulterated below the legal limit, and a dairyman was amerced in a like amount for selling milk impoverished by the abstraction of 69 per cent. of its cream. The Bench intimated that in future cases of milk adulteration heavy penalties would be inflicted.

Drinking in Germany.—On this subject the *North German Gazette* (the Government organ) states that from 1872 to 1880 there has been consumed in the German Empire more than six and a half milliards of marks' worth of beer, while in the last ten years nearly a milliard's worth of brandy alone has been drunk in the Fatherland.

Defects Common to the New and the Old World.—Dr. Frank H. Hamilton, consulting physician in the case of President Garfield, speaking of plumbers, said they had many difficulties to contend with, as, for instance, the fact that no pipes are perfectly impervious. And even could they be made so they would not last more than a few years; the length of time they last depending on their thickness, the character of the substances passing through them, and their exposure to the oxidation of the air. So it may happen that there may be a leak in the pipes which no foresight can prevent. These difficulties are increased by the fact that the pipes in our houses are generally encased in plaster or courses of brickwork, where their defects can be neither seen nor remedied.

COMMUNICATIONS have been received from—

THE SECRETARY OF THE STATISTICAL SOCIETY, London; THE EDITOR OF THE "BRITISH MEDICAL JOURNAL," London; DR. MEYMOTT TIDY, London; MARY PLATONIAN, London; MR. J. T. DENNY, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; MR. WILLIAM FRASER, Aberdeen; MR. J. CHATTO, London; THE SECRETARY OF THE SOCIAL SCIENCE ASSOCIATION, London; DR. J. W. MOORE, Dublin; THE SECRETARY OF THE HARVEIAN SOCIETY, London; THE PROFESSORS OF UNIVERSITY COLLEGE, London; THE EDITOR OF THE "NEW YORK MEDICAL JOURNAL AND OBSTETRIC REVIEW"; THE DIRECTOR OF THE ANTHROPOLOGICAL INSTITUTE, London; MESSRS. EVAN, SONS, AND CO., London; THE SECRETARY OF THE OBSTETRICAL SOCIETY, London; MR. ADOLPHO RITTWAGEN, Malaga; SIR WILLIAM MAC CORMAC, London; THE REGISTRAR-GENERAL OF SCOTLAND; THE SECRETARY OF THE ROYAL INSTITUTION, London; THE SECRETARY OF THE CLINICAL SOCIETY OF LONDON; DR. J. LUCAS, India; THE REGISTRAR OF THE SCHOOL OF MEDICINE OF THE DURHAM UNIVERSITY; THE SECRETARY OF THE BRUSSELS UNIVERSITY; DR. P. MCBRIDE, Edinburgh; MR. H. C. BURDETT, London; MR. H. S. COOKE, London; THE PRESIDENT OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; THE EDITOR OF "MUSICAL OPINION AND MUSIC TRADE REVIEW," London; THE PRESIDENT OF THE NATIONAL DENTAL HOSPITAL AND COLLEGE, London.

BOOKS, ETC., RECEIVED—

Annual Report of the Ruskin Society—Report on the Health, etc., of Kensington from March 25 to April 22—Note on the Formation of Fibrine, by Mrs. Ernest Hart—The Physical Signs of Pulmonary Disease, by Dr. Steell—Annual Report of the General Hospital and Dispensary for Sick Children, Pendlebury, Manchester—Report on the Health of the Borough of Birmingham for 1881—Fünf Lustren Ophthalmologischer Wirksamkeit, von Dr. Med. Albert Mooren—Annual Report on the Borough of Leicester for 1881—The New Handbook of Dosimetric Therapeutics, by Dr. A. D. Burggraave, translated by Henry Arthur Allbutt, M.R.C.P.E.—Mechanical Dentistry, second edition, by Charles Hunter—The Mental Status of Guiteau, by Walter Channing, M.D.—The Special Therapeutic Value of Hyoscyamine in Psychiatry, by C. H. Hughes, M.D.—St. Louis—Sanitary Plumbing, by S. Stevens Hellyer—De l'Électricité Statique et de son Emploi en Thérapeutique, Mémoire par le Dr. Paul Vigouroux—The Tissues and their Structure, by Alexander S. Kenny, M.R.C.S.—Transactions of the Medical Society of Pennsylvania, vol. xiii., part 2—The Pharmacopœia of the London Hospital—Examination of Brain, by W. Bevan Lewis, L.R.C.P.—London Water-Supply Report.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Le Concours Médical—Manchester Guardian, May 12—Therapeutic Gazette—Alienist and Neurologist—Medical News—Journal of the British Dental Association—Journal of the Vigilance Association—Cape Times, March 21—Revue de Médecine—Englishman, April 15, 20, and 21—Canada Lancet—North Carolina Medical Journal—Boston Journal of Chemistry—New York Medical Journal, etc.

CURIOUS ACCIDENT IN PARACENTESIS THORACIS.—Dr. Couette exhibited, at a meeting of the Société des Sciences Médicales de Lyon, a drainage-tube which had fallen into the cavity of the pleura after an operation for empyema, and which was extricated from it in a very curious manner, viz., by, so to say, invaginating itself within the canal of another tube of a larger calibre which had been introduced to replace it.—*Lyon Méd.*, May 14.

ORIGINAL LECTURES.

THE CROONIAN LECTURES
ON
THE CLIMATE AND FEVERS OF INDIA.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., etc.

THE CONTINUED FEVERS OF INDIA.

LECTURE III.—PART II.

CONTINUED AND ENTERIC FEVERS.

Continued Fever.

WRITERS on Indian and tropical disease have described a form of continued fever, liable, like remittent, to be modified by visceral complications, and to have a fatal termination; post-mortem examination revealing pathological changes of various degrees of importance. It is attributed to climatic causes, and the circumstances attending life in tropical or subtropical regions, such as heat, atmospheric vicissitudes, terrestrial emanations, personal habits; and no very distinct characters differentiate it from remittent when it has assumed a continued form. Twining, Annesley, Martin, and others refer to such fevers, and generally, I think, they regard it as a variety of malarial fever—in which perhaps there is little difference of opinion. But it is necessary to distinguish it from specific continued fevers, with which it may be confounded. In typical cases of remittent the diagnosis is clear enough, but in many others it is difficult, if not impossible, for the characters of the temperature curve vary so little that it is not possible to deduce from them any certain differential points of diagnosis. It would appear that other fevers peculiar to India may assume this condition, especially if not dealt with properly at first, and that when visceral complications occur, they are generally, if not always, the precursors or concomitants of the change of type.

Enteric Fever.

It was not until the year 1853 that attention was called to pathological changes in the intestines of persons dying of fever in India, and then it began to be suspected that certain protracted and fatal cases were due to a disease identical with the typhoid of England. Careful observations of the morbid appearances after death, and of the symptoms and progress of the disease during life, confirmed observers in India in the belief that the diseases were one and the same, modified, it might be, by climate and the influence of malaria. Further observations in different parts of India established this view, and in a few years typhoid fever became fully recognised as a prevalent and fatal form of disease, especially among young and susceptible Europeans—a class notably represented by the young soldiers of our Army in India.

Annesley had left it on record that he had never remarked any appearance of fever from a specific or contagious source in India, and that, although believing in the influence of infection as regards the continued adynamic fever of temperate climates, he had never, during an experience of thirty-seven years in India, observed fever to proceed from contagion in that part of the world. The fevers, therefore, of India, and he believed of warm climates generally, are the effects of exhalations from the soil and of vicissitudes of season, the former especially in predisposed constitutions; and the types and forms which these fevers assume are entirely dependent upon the activity of these causes, in relation to the conditions of these subjects, and various collateral circumstances occurring about the time of their invasion, and that fevers in India vary in every possible grade and form, from the slightest febrile or ephemeral attack to the most malignant type. This is tantamount to saying that all fever in India is climatic, and that specific contagia are altogether excluded, and that the course and characters of fever depend on local determination and complication, and external

VOL. I. 1882. No. 1665.

influences, the originating cause being one and the same, though varying in activity and intensity. I think it is a general impression among those who have studied and treated disease in hot climates, that Annesley rightly enough expressed the importance of this etiological question, and few will dissent from his views as far as they apply to much of the disease in question, and that some of the continued as well as the paroxysmal fevers are due to what may be described as climatic causes.

But great advances have been made in our knowledge of the nature of fevers since he wrote: it has been clearly pointed out that in India fevers arising from specific contagion do occur, and it is now well known that relapsing, typhus, and typhoid fevers are Indian diseases.

It is within the period of my own service in India that attention was first directed to the existence of typhoid fever in India. Before that time it had not been noticed, but its existence is now fully established, and appears in the Sanitary Report as the chief fever-death cause among our young soldiers in that country. It would, however, be as reasonable to say that it had not existed in England before you, sir, and others defied it to be a specifically distinct disease; as that it did not exist in India before Assistant-Surgeon Scriven, of the Bengal Medical Service, pointed out its existence in that country. He, guided by the light thrown on the subject by British research, separated typhoid from remittent in India, as in England it had been separated from typhus. The honour of this important step in fever pathology is, as far as I know, clearly due to Scriven; and his views were confirmed, after he had promulgated them in 1853, by Dr. J. Ewart, a Fellow of our College, and by the late Dr. E. Goodeve, who published a valuable clinical lecture on the subject in the *Indian Annals of Medical Science* of January, 1859, in which he pointed out the identity of the typhoid of India with typhoid fever in Europe. But these gentlemen did not discover a new disease—their merit consisted in pointing out one already existing, but which had hitherto been overlooked as distinct from other diseases with which it had been associated and confounded.

Annesley, Twining, Morehead, and others had long ere this pointed out the frequency of typhoid symptoms, diarrhoea, enteric ulceration, and other phenomena characteristic of adynamic types of fever.

Annesley says (a): "The fevers of warm climates, especially as observed in the Eastern hemisphere, seldom go through their entire course without evincing a predominance of morbid action in some viscus or texture, most frequently those seated in the abdominal cavity and in the cranium. I do not, however, consider that the increased disease in certain localities ought to be viewed as the immediate cause of the febrile excitement, or, in other words, that fever is merely general disorder supervening on disease of a particular organ; but, on the contrary, that the exciting causes of fever produce disorder of the frame generally, which, owing to the predisposed state of certain viscera or textures, occasions a prominent derangement of them; and that if this superinduced disorder be allowed to proceed, it often aggravates the general fever, and rapidly terminates in organic lesion.

"Amongst the most early local affections which appear in the course of intertropical fevers is an inflammatory state of the mucous surface of the stomach and duodenum.

"In the progress of those fevers, in which these are prominent symptoms, especially in the bilious remittent and bilious inflammatory continued fevers, and in many of those which assume characters of a malignant kind, the inflammatory state of this part of the digestive mucous surface exists in a more or less aggravated form, and not unfrequently extends to the internal surface of the small intestines, and even, in some cases, to the large bowels. This extension of the inflammatory action to the small intestines is indicated by tumefaction and tenderness of the abdomen to pressure made about the umbilicus, by a sense of inward soreness or heat in this situation, and by an irregular state of the functions of the bowels, attended with occasional sickness, and a frequent, scanty state of the alvine discharges, approaching to diarrhoea, and sometimes to an intermediate state between diarrhoea and dysentery."

He also says:—"Marks of disease of the small and large intestines are generally confined to their internal tunics.

(a) "Diseases of India," page 535.

The duodenum, jejunum, and ileum, especially the duodenum and termination of the ileum, very frequently are diseased in their mucous surface, which is inflamed in patches, sometimes covered with a muco-purulent secretion, and studded with small ulcerations, particularly the termination of the ileum. Occasionally the mucous surface is of a brick-red or purplish shade of colour, apparently ecchymosed, and covered with a bloody sanies, and readily detached from the subjacent texture. In several cases the ulcerations, which sometimes are large and far apart, at other times small and agglomerated, especially the former, have nearly penetrated the tunics of the intestines, and in a very few cases I have observed this occurrence actually to have supervened, the contents of the bowels being partly effused into the peritoneal cavity, and having produced peritonitis.

"Marks of inflammatory action are occasionally met with in the peritoneum, omentum, and mesentery, in all the forms of fever; and in protracted cases of the remittent and intermittent types, especially those in which the liver and spleen have been obstructed or otherwise diseased, considerable effusions of a serous fluid into the cavity of the abdomen are not uncommon.

"In these cases the peritoneum presents either a sodden appearance or congestion of the veins. In many of those cases, also, the mesenteric glands are enlarged, of a light colour, and hard consistence. Diseased appearances of the mesenteric glands are not associated alone with the dropsical effusions, as they are frequently observed when no such effusion is present, and when the mucous surface of the bowels is diseased, and the liver and spleen enlarged, and otherwise changed in structure."

Twining in 1842, describing what he called the congestive fever of the cold season, says—"There is often much congestion at the root of the mesentery, and in the fat and cellular structures surrounding the duodenum, where it is bound down across the spine. In a few rare instances where patients have died after a protracted fever of this sort, superficial ulcerations of the mucous membrane of the small intestines were found. I will not venture to assert that the ulcerations above alluded to ought to be considered as causes of the fever of the cold season; and my reason for not deeming that pathological condition a primary affection existing at an early period of the disease is, that active purgatives may be repeated daily for a long time at the commencement of this fever without producing irritation—in fact, they almost always afford relief; whereas we do sometimes find that active purgatives produce a degree of intestinal irritation at a late period, and when a fatal termination takes place afterwards, ulcerations of the small intestine are found in these subjects. If some extended observations should prove that these ulcerations of the small intestine exist generally in the cases which terminate fatally, and that such a pathological condition is rarely met with in the inspection of subjects that have died of other descriptions of fevers in Bengal, I should be inclined to adopt the opinion that a peculiarity of the disease would be thus ascertained, which, combined with the exclusive prevalence of this fever in the cold season, its insidious invasion, obscure symptoms, slow progress, and protracted course, attended with prolonged stupor and delirium, and the organic changes at its later stages, might establish a resemblance to some modifications of European typhus; although the resemblance be not strictly correct in all its details." The general characters of the fever he describes present a similarity to European typhoid; it is evident that it is no new discovery, and that the bowel or other lesions did not escape notice.

Sir R. Martin, speaking of the congestive continued fever of Bengal, says—"In neglected cases we find hepatic abscess, and sometimes ulceration of the mucous digestive surface. The latter I found to be very prevalent among the labouring classes of natives whom I had to treat at the Native Hospital of Calcutta, on account of neglected fevers of from fifteen to twenty days' duration, and a large proportion recovered."

It seems obvious from these references that fever with intestinal ulceration and other symptoms characteristic of enteric fever was observed in India before 1853.

Dr. Morehead, in the second edition of his "Researches on Diseases in India," page 160, remarks that the observation of a case, together with the report of Scriven, Ewart, and Goodeve, removed the doubts he had previously entertained

as to the existence of typhoid in India, and says:—"The investigation will require to be prosecuted with much care, in order that the tendency, so common in medical research, to exaggerate the importance of new subjects of inquiry to the neglect of established truths, may be sufficiently controlled; and that it is to be recollected that disease of Peyer's glands, either in the stage of turgescence or ulceration, is not peculiar to typhoid fever only, for it occurs in cholera, in protracted diarrhoea, and in acute muco-enteritis, or as an occasional complication of remittent fever, and is a frequent one of phthisis pulmonalis." From which it follows that we are not justified in deducing the existence of specific typhoid fever from the mere character of the post-mortem appearances, which require to be interpreted by the symptoms that have been present during life in order that they may be correctly understood.

In a letter from Dr. Morehead to myself, that gentleman says:—"I, with you, have never been satisfied with Budd's exclusive theory, or with the evidence which he advanced. Murchison's general sewage views always seemed to me to come nearer the truth; but I am not quite certain whether he adhered to them in his latest writings. I am entirely with you in thinking that Peyerian ulceration is by no means necessarily the product of one cause; and I would add, or in association with one set or order of symptoms. On this point I gave a warning in the second edition of my books; and it is from neglect of this pathological fact that much of the confusion in India has arisen. . . . You incline, if I mistake not, to the opinion that there are in India cases with the symptoms and lesions of European enteric fever, which cannot be traced to a faecal cause, either on Budd's theory or Murchison's, but which must be traced to climatic or other ordinary causes. I do not dispute it; nay more, I shall not be surprised if it proves so. All I say is that I have seen no evidence that satisfies my judgment; nay more, I do not think that there has been clinical investigation of a quality and to an extent to settle the question; and that therefore it should be relegated to India for further and better clinical inquiry."

Dr. John Macpherson says, somewhere about 1851 Assistant-Surgeon Lee, just from home, made several post-mortems with him at the General Hospital of cases of fever of the hot weather, occurring chiefly among European seamen. Mr. Lee was surprised to observe ulceration of Peyer's patches, and was immediately reminded of cases of dothenterite which he had just been seeing in Edinburgh. Dr. Macpherson had not been in the habit of examining the small intestines minutely in fever cases, it being the received doctrine that they were *not much affected* in tropical fevers. The fevers in which the ulceration was discovered did not appear to him to differ from fevers which he had been treating for many years, except in so far as he was accustomed to see the types of fever vary considerably in different seasons, the marked variations being—

In the amount of head symptoms.

Intensity of lumbar pain.

Gastric irritability.

Presence or absence of diarrhoea, the ease not being amenable to quinine, being protracted, and what used to be called a typhoid state supervening, occasional redness of fauces, occasionally a roseolar rash, of which much was not made.

As a general rule, fevers were more acute in the hot weather, more protracted in the cold season.

There was in these cases much more pyrexia, and the course was more acute than he understood to be the case in European typhoid. He therefore did not regard the cases as typhoid, and sought for no new cause to account for fevers which appeared to him to present little novelty in their general symptoms. He certainly never thought of faecal poisoning, nor did he think of any specific cause for what he considered to be varieties of the ordinary fevers, which he attributed to exposure, climate, and season.

My own experience, so far as it goes, coincides with that of Dr. Macpherson. In or about 1854 my attention was arrested by a case of fever at Lucknow in the person of a young French gentleman of between twenty-eight and thirty, who died after a protracted fever of more than three weeks' duration, attended with diarrhoea, hæmorrhage from the bowels, iliac gurgling, tympanites, stupor, sordes on the tongue and teeth, and finally death, collapse evidently supervening on perforation. This gentleman had been exposed

to malarial influences, and the fever was regarded as climatic, for there was no reason to suppose that he had been exposed to the influence of faecal poisoning, though of course it is impossible to prove a negative. I then thought of the possibility of malarial fever assuming the enteric form. Dr. Maclean, C.B., the distinguished Professor of Medicine at Netley, says:—"So far back as 1838 I treated fevers in Secunderabad, in the Deccan, and in China as far north as Nankin, extending over more than twenty days, with bowel complications. The mortality exceeded that of fevers distinctly malarial, and they were not amenable to quinine freely given; death from hæmorrhage from the bowels was frequent, and the intestinal lesions were those we now recognise as characteristic of enteric fever." I think it is needless to cite more evidence of the existence of fever with typhoid symptoms and Peyerian ulceration antecedent to the year 1853.

Dr. Gordon, C.B., late Chief of the Medical Service in the Madras Presidency, says:—"In fevers as I saw them in British soldiers, enteric complications, including ulcerations precisely like what occurs in specific fever in this country, occurs in fevers (in India) that cannot be traced to anything pythogenic or otherwise specific. If a non-specific fever in the tropics occur in a young delicate lad, it will almost to a certainty become complicated sooner or later in its course by diarrhoea or dysentery, and ulceration will occur in small or large intestines, Peyer's glands included. Is it meant to call it 'enteric' in a sense that is pythogenic? If so, I believe that the designation is wrong." I do not gather from Dr. Gordon's opinions, as expressed in many reports and papers he has written, that he denies the existence of specific typhoid fever in India, or that he considers it as a new disease; but, rather, that he insists on the necessity of sifting all cases, and of examining closely into their history, with the view of ascertaining if cases recorded as enteric, thereby meaning specific faecal enteric fever, may not have been of malarial or climatic origin.

Dr. Chevers says (*Medical Times and Gazette*, September 20, 1879):—"The question, Is enteric fever at present a common or a rare disease in India? is certainly one of the most perplexing, as it assuredly is one of the most practically momentous, questions with which medical men in that country have to cope. It being a plain fact that if we, encountering a case of *paludal remittent*, with bowel complication, insist upon calling it true enteric fever, and treat it as such, withholding that free and steady use of quinine, which is the only remedy, that case will almost inevitably end in death. Dr. Bryden assuredly did a good and very needful work in giving enteric fever a place in the register of cases; but, after admitting this, I confess my unwillingness to admit that we have proof sufficient to convince us that 571 European soldiers of the Indian Army died in six years of true enteric fever." In a letter to me Dr. Chevers says:—"There may be follicular ulceration, first tubercular, second dysenteric; but whenever I have found such ulceration in a case of fever, the other features have been those of true enteric fever." Dr. Chevers further says (*Medical Times and Gazette*, September 27, 1879):—"If there be two forms of Indian enteric fever, there may possibly be two sets of intestinal lesions. My own English and Indian experience, however, shows no change in these lesions." And he gives the following excellent advice to young medical officers:—"Approach each fever case, where the disease assumes a continued form, in a spirit of vigilant inquiry, and never rest satisfied until you have sufficient grounds for determining whether it is one of remittent or true enteric."

Deputy Surgeon-General Dr. Alexander Smith, speaking of fever in India, says, in 1873:—"With the setting in of the rains in June or July the fevers assume more of the low remittent and continued types, running a much slower course, and showing in an unusually marked degree, especially in the latter form, in a majority of instances, the bowel complication held by medical writers to be characteristic of so-called 'enteric' or 'typhoid' fever. (b) He denies the specific origin of enteric fevers, and attributes it to general and climatic causes; and asserts that for the germ hypothesis of typhoid fever there is no trustworthy evidence.

Dr. Wall, of the General Hospital of Calcutta, writes, 1882:—"I believe that a large proportion of cases returned

as typhoid fever have no right to that name. If a man die in India after having an elevated temperature, and an ulcer can be found in his intestine, the case is at once called typhoid. But it takes a great deal more than an intestinal ulcer to make a typhoid fever. I have seen many cases that could not with certainty be referred to any type of fever, but which had on the whole more resemblance to remittent than any other, and which were found after death to be coincident with intestinal ulceration, but an ulceration distinctly not typhoid; it was an irregular ulceration, by no means selecting the site of Peyer's patches, and very often encircling the intestine; and my experience is that this form of ulceration often occurs in cases that would better bear the name 'remittent' than anything else."

Dr. MacConnell, the very able Professor of Pathology in the Medical School of Calcutta, says:—"As regards typhoid or enteric fever in this country, and its etiology, I am inclined to believe that the evidence of a specific poison is not nearly so generally available here as in Europe, and that probably climatic influences, *plus* want of proper sanitation, gives rise to not a few cases in India." He continues:—"There is the great difficulty in diagnosis. In all the cases that I have seen here and verified by post-mortem examination, neither the course of the fever nor the range of temperature has been at all typical, and the presence of rose spots or of any specific eruption has been quite exceptional. Of course it is more difficult to see rose spots on the dark skin of a native, but they have been looked for carefully and repeatedly, and yet not found.

"Malarial agency seems to modify the whole course of the disease, and thus one great help in diagnosis at home, viz., the *diurnal range of temperature*, is wanting to us out here. Murchison says:—"that the eruption of the lenticular spots is perhaps the only reliable distinctive mark of pythogenic fever," i.e., between it and its malarial congeners or simulators. Especially difficult do I find it to distinguish between many *remittents* and *enteric* fever. For instance, one sees not unfrequently a continued type of fever, with great vital depression, and perhaps mental perturbation, which is uninfluenced by antiperiodic remedies, such as quinine or cinchona, or but to a slight extent; at any rate, cannot in any sense of the word be *cured*, or rather *cut short*, by their use. Yet there is no eruption, no diarrhoea, etc. Say the patient dies; the chances are (for I have frequently observed this) that *no specific bowel* or other typhoid lesions are met with. If the case recovers the doubt still holds good, as one man will return it as 'typhoid,' another as 'remittent,' and yet of course neither diagnosis is absolutely reliable. It is because of the almost unrivalled opportunity I enjoy here of being able to confirm clinical observation by post-mortem examinations (or otherwise, i.e., of correcting it), that I still feel very sceptical as to any considerable prevalence of true enteric fever (a fever which, as I understand, has certain infallible anatomical signs discoverable post-mortem, whatever may be the variations in symptoms during life) among the natives of this country. Among Europeans (pure) this may be somewhat different. If I were asked to formulate an opinion upon this question, I would put it somewhat in this way:—

"1st. That enteric fever is a disease which undoubtedly prevails in India in both Europeans and natives, and has in both the same anatomical signs or lesions as the true disease in Europe.

"2nd. That it, however, probably prevails much more largely among Europeans than natives, and that young Europeans, newly arrived in the country, are most susceptible to the disease.

"3rd. That there are no absolutely distinctive signs or symptoms by which enteric fever, as it occurs in this country, can be distinguished *during life* from certain continued or malarial fever, notably the so-called 'adynamic remittent fever.'

"4th. That it follows that many such cases, i.e., of enteric fever, are overlooked or wrongly classed as remittent or continued fevers, and *vice versa*.

"5th. That in not a few cases the etiology of the disease seems to differ from that usually assigned to it in Europe, viz., specific faecal contamination, but may arise possibly from climatic causes, combined with non-specific faecal evacuations or other like poisonous material productions, the result of insanitary conditions in dwelling-houses, sewers, cesspools, drinking-water, and all other sources of personal human

contamination. And in support of this view it may be said that the disease in this country, especially among natives, is sporadic, not epidemic; it affects individuals rather than communities, and thus exhibits a behaviour quite different to that of the specific poison and its resulting phenomena in temperate regions or climates."

Dr. Woodward, of the United States Army, says:—"The malarial influence and the pathological processes to which it gives rise are not merely manifested by the frequency of ordinary ague; it colours and complicates other diseases to an extent which can hardly be credited by those who have not been an eye-witness to its effects. In the fall and early winter of 1861 reports began to come from various quarters that a new form of fever was prevailing in our camps. The medical officers were well acquainted with ordinary typhoid, and it was precisely these men who first called attention to fevers that differed in many important particulars from those to which they were accustomed at home."

A board of inquiry, after careful examination, recorded the opinion "that, while a certain number of cases of ordinary typhoid existed in the army, the large majority were bilious remittent, which, not having been controlled in their primary stages, have assumed the adynamic type which is prevalent in typhoid fever. The cases, in great number, were studied by the best instructed medical men, who, recognising an unusual type, called it 'Chickahominy fever.'"

Dr. Woodward, believing this form of fever to be the result of the combined influence of malarial poisoning and "the cause of typhoid fever," proposed the name "typho-malarial," which was adopted. He says:—"This is no new thing. In every great army that ever yet campaigned for any length of time in a malarial region, the prevalent form of fever has been a hybrid between malarial fever and some form of typhus, the causes acting with peculiar intensity on strangers. The morbid conditions may be modified by a scorbutic taint." He refers to many occasions on which this fever was observed, and notes especially the "morbus mucosus" which occurred at Göttingen in 1760-61, where it seems to have alternated with intermittent, remittent, and dysentery. It was a fever which lasted twenty-one days, or sometimes thirty days; some cases proved fatal as early as the ninth day. It began as remittent or tertian, merging into the continued fever; during convalescence it reverted sometimes to the intermittent type. It had otherwise all the symptoms of typhoid—delirium, frequent feeble pulse, diarrhoea, meteorism, in the worst cases spots; tongue furred and swollen, with red papillæ protruding, dry and brown as the disease progressed; hæmorrhage from the nostrils about the sixth day; still more frequently hæmorrhages from the bowels. Peruvian bark proved highly efficacious in those cases in which the remissions were most marked.

It received the name "mucosus" from the belief that an excessive secretion of mucus from the alimentary canal was its most characteristic phenomenon. Röderer and Wagler described the morbid appearances found after death.

In one of the autopsies the agminated glands near the ileo-cæcal valve were marked with black pigment, the "shaved beard" appearance, the mesenteric glands were enlarged. Evidence of peritonitis was often present. Dysenteric sloughs were frequently found in the colon, but the bulky tumefaction and ulceration and sloughing of Peyer's glands is not recorded as having been present. Dr. Woodward says he is by no means sure this essential lesion did not exist in some cases. Perhaps some of the gangrenous spots described as existing were of this nature. The Göttingen observers described this epidemic as "the corrupted and degenerate progeny of intermittent fever," and they thought they saw also a causal relationship between intermittent fever and dysentery, an opinion which Dr. Woodward says he shares with them, and so do I; for the more one studies these fevers and dysentery as seen in India, the more closely do their etiological relations seem to be drawn together.

It seems tolerably clear from this that in America the existence of climatic fever with ulceration in the small intestines, distinct from the specific enteric fever, is recognised; it has been placed apart, and is regarded as the result of the combined action of a malarial and typhogenic poison, though there are not wanting indications that it may be the result of progressive action of a febrile condition, however set up.

Turning to another quarter, I find the view of typhoid fever of a non-specific character strongly advocated by M.

Léon Colin, of the Val de Grâce, a medical officer of eminence in the French army, whose experience and researches on the subject of malarial and typhoid fevers give great weight to his opinion.

He says:—"A theory was advanced by M. Boudin that intermittent and typhoid fevers were antagonistic, and that where one existed the other was absent; but it has been abundantly shown that not only in Algeria but in Italy the mortality from both has been excessive. In Algeria, 4.63 per 1000 men died of typhoid; 3.05 in France itself. In Algeria it caused as much mortality as intermittent. In Rome the French army lost in 1868 the enormous number of 203 per 1000 from typhoid alone. These facts prove that malaria confers no immunity; indeed, intermittents and typhoid appeared simultaneously in the same regiments in Algeria and in Rome."

In India localities notoriously malarious are not specially remarkable for the prevalence of typhoid, but it must be remembered that no part of India, except the hill-stations, can be regarded as exempt from malarial influences; and that no station where Europeans are located is exempt from typhoid. There appears to be nothing in India to support the theory of antagonism between malarial and typhoid fever; but if, as is thought by some, fever with enteric ulceration is of miasmatic origin, the question of relative prevalence and mortality of enteric and paroxysmal fever proves nothing more than that, under the circumstances, the fever had assumed one type rather than the other; and it is manifest that very careful and close analysis of the history of individual cases and outbreaks in Europeans and natives should be made, especially in such developments of fever as have occurred in regions like Burdwan, the Doab, and other districts where low and continuous forms of fever, ascribed to miasmatic influences arising from water-logged land and organic decomposition, have prevailed. Some interesting reports have been published on the Burdwan fever, and I would notice especially those by Drs. French and Roy, of the Bengal Service; they attribute it, as do others, to paludal influences, and in their account of the cases that assumed the low remittent type there is much that is suggestive of fever attended with enteric complications.

I cannot help thinking that examination of the intestines might have discovered enteric ulceration—whether precisely similar to that of specific typhoid, I cannot say. Unfortunately there are no autopsies recorded, and this is one of the great difficulties attending study of disease in India. That typhoid fever with ulceration occurs in India among the native population, as it does among the Europeans, is beyond dispute (as you may see in those drawings); but how much of it depends on specific poisoning, how much on general causes arising out of heat, miasmata, of vegetable or animal decomposition, or of both combined, and what are the distinctive phenomena in life and anatomical lesions after death, are subjects that require further inquiry. I have no desire to dogmatise on this subject, but I would repeat my conviction that there is much fever of climatic origin which is as like specific typhoid as one case of typhoid may be like another; and that it is of the same character as that called by Americans "typho-malarial," and by the French "typhoïde palustre." I am aware that this opinion is not accepted by all, but, after many years' experience, such is the conclusion I have arrived at; and I find that similar views are entertained by others. I do not say that this form of fever differs in its pathology so much as in its etiology. It seems to me quite possible (and my presumption is supported by experience) that though a disease, of which the cause has never been actually demonstrated, has been logically traced to a specific origin in temperate climates, it may have other sources of development in India.

But to return to M. Léon Colin. He says authors of great weight have expressed the opinion that the paludal typhoid is the result of the combined action of paludal and typhoid elements, and that the compound name of the fever perfectly indicates the composite nature of its cause. This condition he admits may occur; he has recorded cases of it, and refers to some that occurred at Nancy in 1875, when the infection was at the same time telluric and putrid. Other examples are given in an epidemic at Avranches in 1873. But otherwise the fever is the transformation of paludal into typhoid fever; and he is of opinion that all acute febrile conditions, accompanied by a marked alteration in the secretions and by gastro-intestinal complications, may induce

the spontaneous development of typhoid,(c) and that in such cases it is natural that it should be impossible to recognise the affection during life, for the two diseases have ceased to be distinct, the remittent fever being transformed into typhoid.

He gives numerous examples and post-mortem examinations in support of his views. One is as follows:—M. Maillot found, in the case of a person who died of pernicious remittent, the small intestine was normal to within two feet of the ileo-cæcal valve, where ulcerations to the number of twenty-five or thirty were found.

Nepple also gives a similar case, in which there were ulcers in the jejunum and ileum of the size of a centime, with gangrenous surfaces on the elevated patches of ulceration. The mesenteric glands were white and hard, and of the size of a nut (*noisette*).

Linguette, in Cochin China, has also shown typhoid complications of pernicious fevers, like those which occurred in Algeria and in Rome.

Colin refers to the opinion expressed by the Academy of Medicine on the malarial origin of typhoid fever, which does not admit of the antagonism supposed to exist between malarial and typhoid, against which so many proofs exist. They allow that paludal influences may confer a character (*cachet*) on epidemics, but cannot originate typhoid; when it appears in these circumstances the origin must be sought in the general state of hygiene of the towns or houses where the endemic tendency prevails. Colin says hygienic conditions must be known before we attribute the fever to marsh exhalations, and that he also is of opinion that animal miasmata, above all others, are concerned in the production of this disease. He gives further instances of other epidemics observed in France, especially by Gaultier de Claubry at Carentan (Manche), and by M. Gintrac in Sainte-Croix de Mont-Carentan, near Bordeaux, in which typhoid occurred as a result of malarial poisoning, and I would refer you to his remarks in these reports in the *Archives Générales*.(d)

GENERALISED VACCINE ERUPTION.—Dr. Guéniot detailed to the Académie de Médecine (*Union Méd.*, May 18) the following interesting case:—He practised six vaccine punctures on an infant five months old, the subject of an eczema then in a state of retrogression. On the fourth day there appeared over the papulæ, which had become visible at each puncture, large, well-developed vesicles, resembling those of the sixth or seventh day, and furnishing very abundant vaccinal lymph. On the seventh day there appeared on the shoulders, arms, and chest a multitude of small papulæ, which next day were translated into as many vesicles. By the next day there were at least 300 well-developed vaccinal pustules. The infant had fever, irritation, and sleeplessness to a degree that was somewhat alarming; but by the fourteenth day there was general desiccation, and on the seventeenth the child was convalescent. Dr. Guéniot, believing that the excoriations of the skin from the eczema, by multiplying the means of absorbing the virus, might have been one cause of this “pullulation,” asked whether, in children suffering from eczema, vaccination should be deferred. He replied negatively, believing it preferable to expose an infant to the chance of this rare occurrence, than to taking so serious a disease as small-pox. But he is of opinion that two punctures instead of six should be practised, one on each leg.—Prof. Blot, however, was of opinion that, unless an epidemic of small-pox was prevailing, it would be better to defer vaccinating infants who are the subjects of eczema or impetigo. There are, indeed, several cases similar to that of Dr. Guéniot on record.—M. Hervieux also referred to several cases that have been published, in which a more or less confluent vaccinal general eruption occurred in eczematous children. Still, it is rare, for in 15,101 vaccinations he had practised for the Academy he had never met with an instance, although many of the infants were eczematous; and he thinks that vaccination should not be postponed on this account.—Dr. Guéniot observed, in reply, that the very fact of these generalised vaccinations occurring was an argument in favour of great susceptibility to the contagion of small-pox, and a strong reason for not delaying vaccination.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

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LECTURE VIII.

B.—ORGANIC AFFECTIONS.

I.—THOSE DEFINED BY UNIFORM CAUSES.

1. *Parasitic Affections of the Skin.*

A.—Cutaneous Affections due to the presence of Vegetable Parasites (*Dermatophyta*).

3. *Tinea versicolor* (*Pityriasis versicolor*).—*Parasite*, the *Microsporon furfur*, discovered by Eichstädt in 1846.—The following are the microscopical characters of the parasite, which is situated in the most superficial layers of the epidermis; it is generally present in great abundance, these parts being usually loaded with the spores and tubes of the fungus. The spores refract the light strongly, are nearly circular, very uniform in size, larger than those of the *Tricophyton*, and are collected into little clusters like bunches of grapes. These groups are nearly equally apart, and are connected by a network of tubes, a few of which only are jointed. The tubes are of great length, but in order to demonstrate this we must resort to some such plan as that suggested by Gudden, viz., blister the skin, and put a portion of the cuticle thus separated under the microscope. Spores and tubes are also found on the hairs and in them, though to a much less extent than in Ringworm. The appearance of this fungus under the microscope is so characteristic as to enable the experienced observer to make a diagnosis from the microscopic examination alone.

This is a common affection in adults, and is to a certain extent contagious, though many persons are little susceptible of its influence; hence we often meet with husbands who do not communicate it to their wives, and *vice versâ*. A certain soil seems necessary for the development of the fungus: it is most apt to flourish on the skins of scrofulous persons; hence we often find it in patients labouring under Phthisis. It seems probable, however, as Sir William Jenner has remarked, that this is partly owing to the heat and moisture of the skin, and to the tendency among phthisical patients to wear the same flannel day and night, and to neglect the habitual washing of the body for fear of aggravating the lung affection.

This affection is never seen upon the face; it almost invariably commences on the front of the body (generally on the chest), from which it often spreads to the extremities; and when we chance to see the patient, it occasionally happens that the eruption has, in great measure, vanished from the front of the body, which it first attacked, and is chiefly located on the extremities.

It commences in the shape of minute round yellow spots about the size of pinheads; these gradually increase in size and number, and coalesce, forming irregular patches, often of great extent, and frequently enclosing islands of healthy skin of varying size and shape. Generally, however, at the edges of these patches some of the minute initial isolated spots are to be seen, which are very characteristic. The eruption has a yellowish or brownish colour owing to the colour of the fungus, and it is little, if at all, elevated. It is frequently the seat of very fine desquamation, or, if not, on scraping or scratching the surface it readily assumes a scaly appearance; itching is usually moderate in degree, and frequently, if the parasite is not in a state of activity, it is absent altogether.

The following tables may be of use in the diagnosis of doubtful cases:—

Vitiligo.

1. A mere irregularity in the distribution of the pigment of the skin, which is defective at some parts, excessive at others, and shows no signs of inflammation.

Tinea versicolor.

1. An inflammatory affection, generally more or less itchy and scaly, and may be very slightly elevated.

(c) “Fièvre Typhoïde,” *Archives Générales*, 1878, page 283.

(d) Volume for January to June, 1875, page 429 et seq.

2. The islands of pale-coloured skin are whiter than the healthy skin of other parts, being devoid of pigment.

3. No minute yellow spots to be detected at the edges of the brown patches.

4. If hairy parts attacked, hairs growing from the white patches are white, being devoid of pigment.

5. On scraping the surface nothing comes away.

6. No possibility of spreading by contagion.

7. May be congenital or nearly so, though often commences in adult life.

8. Difficult to cure.

Chronic Erythema in the scaly stage—often called Pityriasis.

1. Colour of patches red.

2. Scales more abundant, thicker and larger.

3. No fungus to be detected, and disease not contagious.

4. No minute spots of eruption to be seen at the edges of the patches.

5. May occur on any part.

Syphilitic Erythema.(a)

1. May appear on any part.

2. Colour of patches coppery in the chronic stage.

3. No minute spots of eruption at the edges of the patches.

4. Not itchy.

5. No fungus to be detected in the scales.

6. Usually history of contraction of Syphilis weeks or months before.

7. Other signs of Syphilis discovered—*e. g.*, Alopecia, ulceration of throat, gland enlargements, nocturnal pains, etc.

Ephelis (Chloasma), previously described, has been confounded with *Tinea versicolor*, but the former is merely an excessive deposit of pigment, oftenest observed upon the face, especially upon the brow, and has no connexion with the latter, which never occurs on the face, and cannot in reason be mistaken for it.

4. *Tinea imbricata* (Herpes desquamans, Turner—Tokelau Ringworm).

In the first annual report of the Samoan Medical Mission for 1868-69, kindly sent me by an old Glasgow student, Dr. George A. Turner, that gentleman refers to a cutaneous affection under the name of *Herpes desquamans*. It is called by the Samoans Lafa Tokelau, or Tokelau Ringworm, because it is said by them to have been imported from Tokelau, or Bowditch Island. To the latter place it seems to have been carried about ten years before that time by a copper-coloured man, said to be a native of Tamana, one of the Gilbert group. His name was Peter, and hence the disease was called Le Peta.

(a) *Tinea Versicolor* is often mistaken for Syphilis on account of the brownish colour of the eruption, and because it is apt to occur in syphilitic subjects, such a soil being favourable to the growth of the parasite.

2. The islands of skin often enclosed by the patches of eruption are of the same colour as the healthy skin of other parts.

3. At the edges of the patches generally small pin-head spots of eruption.

4. Hairy parts rarely attacked, and any hairs growing on affected surface have not lost their colour.

5. On scraping the surface scales come away loaded with the parasite.

6. Often distinct evidences of contagion.

7. A disease of adult life, and never congenital.

8. Easily cured by the application of parasiticides, friction, &c.

Tinea versicolor.

1. Colour of patches yellow or brown.

2. Scales scanty and very fine.

3. Fungus readily discovered, and affection contagious, though not markedly so.

4. At edges generally pin-head spots of eruption discovered.

5. Always commences on, and often limited to, the trunk; never on the face.

Tinea versicolor.

1. Always commences on trunk.

2. Colour of patches yellowish or brownish.

3. At the edges of the patches generally pin-head spots of eruption.

4. Generally itchy to some extent.

5. Scales loaded with fungus.

6. Perhaps history of contagion.

7. None of these signs discovered, though constitution often delicate or phthisical.

It is met with in both sexes and at all ages, and is markedly contagious; it is very much dreaded by the natives, so much so that when it seems to be commencing they frequently cut out the affected part or destroy it with the moxa. "It is," says Dr. Turner, "a scaly disease—much more like Ichthyosis in its general appearance than any other disease with which I am acquainted. The scales, however, differ from those of Ichthyosis in that they are not disposed in squares; they run in concentric circles, and may be well represented by taking a sheet of stout cardboard and shaving the upper layer of it in such a way as to make it curl up in circles. The rings of desquamated cuticle are about a quarter of an inch apart." It is associated with heat and intense irritation, and Dr. Turner adds that it is probably of parasitic nature, although he had not then succeeded in discovering any fungous growth, nor could he say anything very definite as to treatment.

The same disease, apparently, is described under the name of *Tinea imbricata* in an admirable pamphlet kindly forwarded to me some time ago by Dr. Patrick Manson. He tells us that it is principally met with in the Straits of Malacca or islands of the Malay Archipelago, or as an importation from these parts; and "it would appear that some peculiarity of climate is necessary for the ready spread of the disease from person to person."

He has demonstrated its parasitic nature, and has favoured me with a specimen of the epithelial scales from one of his patients, which is loaded with the fungus. He confirms Dr. Turner's opinion as to its contagious nature, and has been successful in inoculating it in three cases. "After inoculation . . . there is an incubation period of about nine days. At the end of this time the fungus has multiplied sufficiently to slightly elevate the epidermis under which it is growing, and form a brown mass between it and the corium. When this has attained a diameter of about three-eighths of an inch, the epidermis in the centre gives way; but as it is still organically continuous with the sound skin at its margin, it is not completely shed, but remains a fringe round the central hole. By friction or other means the free edge of the scale is from time to time removed; and the brown central fungus, and the tissues it is mixed with, now no longer protected by a closely adhering epidermis, are rubbed off as far as the attachment of the scale, and the exposed corium appears pale. Just beyond this point the advancing fungus shows through the epidermis as a brown rim, perhaps very slightly elevated, about one-sixteenth of an inch in breadth. When the entire ring thus formed has attained a diameter of about half an inch, a brown patch is again seen to be forming at its centre; this in its turn also cracks the young epidermis over it, and a second ring is formed inside the first, which it follows in its extension. A third brown central patch is formed in the centre of the second circle, and behaves in exactly the same manner; and so on with a fourth, fifth, and never-ending series of concentric rings."

He believes ordinary Ringworm (*Tinea trichophytina*) to be quite distinct from *Tinea imbricata*. The former attacks specially "those parts of the body which are usually covered with hair, as the scalp, axilla, and pubes; the latter, on the contrary, avoids these situations." The Chinese have very seldom a strong crop of hair on the front of the chest, on the small of the back, or legs and arms; yet these situations, so frequently covered with hair in the European, are, strange to say, shunned by the fungus of *Tinea imbricata*. If, however, *Tinea imbricata* has spread on to a hairy part, the hair follicles are not invaded by the fungus, as in Ringworm, and the hair continues firmly implanted, glossy, and natural.

Again, *Tinea imbricata*, if it has been in existence any length of time, involves a very large surface, as an entire limb or side of the trunk, or oftener still, if not checked, nearly the whole surface of the body. *Tinea circinata*, though sometimes including in its rings large areas, yet by its nature is hindered from attacking at one time the entire skin, as an interval must elapse before a second ring can follow the first. In point of fact, in *Tinea circinata*, though there may be several rings in existence at one time, and some of them include a very large area, yet we seldom have to deal with surfaces more than six inches in diameter, usually with much smaller.

The disease advances over the skin at about the rate of a quarter of an inch weekly; this is about the rate of progress in *Tinea circinata* also. As advancing rings spread,

their regularity is modified by the shape of the parts, the nature of the skin they travel over, and by encountering other systems of rings. Thus after a time the plan is lost or obscured, while the pattern of the disease, so to speak, is everywhere preserved.

The following table shows the difference, according to Manson, in the microscopical appearances in the two diseases:—

<i>Tinea circinata</i> (Ringworm of the Body).	<i>Tinea imbricata</i> .
1. Involves the surface of the corium as well as the epidermis.	1. Does not extend deeper than the mucous layer of the epidermis.
2. Fungus scanty.	2. Fungus present in very great abundance.
3. Spores very scanty in proportion to mycelium.	3. Chains of spores much more numerous than mycelial threads.
4. Spores globular in form.	4. Spores about the same size, but oval, rectangular, or irregular, rarely globular.
5. Mycelial threads generally short, with numerous swellings and constrictions, and other irregularities in outline.	5. Mycelial threads generally long, straight, or gently curved.

Let me add, in conclusion, that in my whole experience I have not met with an instance of this disease, and it is very probable that it has never made its appearance in this country.

The same disease, apparently, is described by Dr. William Macgregor, chief medical officer at Fiji, (b) as having been met with by him there, though only amongst the foreign labourers from the Solomon Islands, the New Hebrides, and Lime Islands, the Fijians and European residents escaping. This immunity of the Fijians may, he thinks, be due to the habit of the latter of frequently rubbing the body with cocoanut oil, though he has often met with *Tinea versicolor* on them. He also made out its parasitic nature, but his description of the fungus does not quite tally with that of Dr. Manson, in so far as he maintains that "the filaments are much more abundant than in *Tinea circinata*, and the spores smaller and less numerous."

It thus appears that this disease is widely distributed over the islands of the Pacific Ocean, and is not localised as Drs. Turner and Manson suppose.

ELONGATION OF THE NERVE IN SCIATICA.—Reporting on some cases of elongation to the Société de Chirurgie (*Union Méd.*, March 14), M. Gillette observed that while stretching of nerves for locomotor ataxy, epilepsy, and other affections of the central nervous system, has furnished no decisive results, it has in neuralgias, and especially in sciatica, proved of indubitable service. M. Gillette has performed some experiments on the dead body for the purpose of estimating the amount of traction requisite for the production of the necessary distension of the nerve without causing its rupture. The force required was tested by a dynamometer placed in the axis of traction. Forty-five experiments were performed at Bicêtre on a series of twenty-three bodies. From these he arrived at the conclusion that, to produce stretching, never more than twenty kilogrammes of force should be employed, and that it would be better to keep even below this. If force above twenty kilogrammes were employed, there would be risk of causing the rupture or the detachment of the nerve.—M. Berger, however, was of opinion that the valuation of the force of traction by means of the dynamometer did not furnish an absolute guarantee, the intensity of the force being modified by various circumstances, among which was the adhesion of the nerve to its sheath. In the experiments which he had performed at the Charité, M. Berger had found that for the production of the small crepitation which indicates the limit that should not be passed in stretching, a very variable amount of force is required. In a young and healthy subject he found that he was obliged to draw with all the force of one hand in order to produce this crepitation.—M. Gillette observed that he considered fifteen or sixteen kilogrammes as the amount of force that may be employed without danger.

(b) *Glasgow Medical Journal*, July, 1876, page 343.

ORIGINAL COMMUNICATIONS.

OBSERVATIONS ON THE PRE-ERUPTIVE STAGE IN SMALL-POX; WITH HISTORY OF CASES.

By MONTAGUE D. MAKUNA, L.R.C.P. Lond.,
Late Medical Superintendent, Fulham Small-pox Hospital.

(Continued from page 496.)

HAVING shown the variations in the duration of the initial stage, I now pass on to the consideration of the period of incubation. It is a subject of very wide interest, and the first contribution to it of any note in English literature was made by Dr. George Gregory in the *Cholera Gazette* of 1832. Since his time the literature on the subject has not far advanced. Although we hear of tens and hundreds of thousands of the human race dying annually of small-pox, the cases in which the incubation period is determined can be counted on our fingers. What renders this task so very difficult? Among civilised communities, that live in towns and cities, free and easy intercommunication from different parts renders it impossible for the victim to tell of an infected haunt he may have visited, or of a subject of the disease with whom he may unconsciously have come into contact. In distant (so to speak) isolated and uncivilised communities, where opportunities for observation are good, the organisation to acquire such a knowledge is frequently imperfect or *nil*. Sometimes the people dread to tell the truth about the source of infection; and, as has been observed, human instinct and superstitions are the same all over the world. At other times we have to put up with bad or convenient memory, or with the stupidity of the patient. A certain percentage of the cases occur among children under ten, who are incapable of giving evidence. And lastly, because of the want of the compulsory registration of the infectious diseases.

That the period of incubation in small-pox varies in its duration, is the experience of all the able and trustworthy observers in all parts of the world. In Dr. Gregory's cases, the pre-eruptive stage varied from six to twenty-one days; Bärensprung gives the period of incubation as twelve to fourteen days; in Murchison's cases it was from eleven to thirteen days; Curschmann gives it as from ten to thirteen days; Otto Obermeier, from five to thirteen days; Wilson, from four to twenty days. We also find, from comparative study of this period in various exanthems, that it varies considerably; and in laying down a general law for each of them we have to guess at the approximate time in most of the cases. It is still a debated question as to what are the causes of these differences in each of them. We can understand, and explain, these variations in the different diseases as arising from different poisons, varying in their chemical constitution, physical properties, or germinative action—be these poisons vegetable or animal organisms, their germs, or, as has recently been stated by Professor von Nägeli, the distinguished botanist, the products of organised bodies. It is well known that the growth and life-history of these low forms of organised existence vary with the varying conditions of their environment. That these varying conditions determine peculiar modes of virulence in the same fungus, is the opinion of the Professor. Dr. Richardson has considered this question in his philosophical paper on the subject at some length. But the most plausible explanation, to my mind, in a single disease as variola, is that the virus is more readily absorbed in some cases than in others, the difference depending on the constitution of the victims, and the various surrounding circumstances. I have found it in my experience that constitutions which are undermined by debility, previous maladies, bad habits, poverty, destitution, their concomitants, and the necessary evils arising therefrom, are predisposed in no small degree to the severity of the infectious diseases, and these conditions, I think, might also influence the period of incubation. Again, Dr. Richardson remarks "that we should be more susceptible to the action of the poisons of the spreading diseases at those seasons of the year when there is excessive waste of bodily structure, and that we should be less susceptible to them in genial seasons

when there is a balance in favour of nutrition, is not a strange physiological pathological phenomenon." I have no doubt that meteorological conditions influence the causation and spread of the epidemics to a certain extent; but such a proposition has, up to this day, remained a problem unsolved in the hands of the epidemiologists, and one worthy of being undertaken by the members of this Society. Very recently we have received an important aid in carrying on our investigations in this direction from the "Researches on the Influence of Light in the Development of Bacteria and other Lower Organisms," by Dr. Downes and Mr. Blunt. Their experiments have been confirmed by those of Professor Tyndall, who has elsewhere suggested to the students of epidemiology to direct their attention towards the solution of this problem. Dr. Panum, of Copenhagen, who had a unique experience in the epidemic of measles in the islands of Faroë, states that a greater variation noted by other observers in the period of incubation in measles might be accounted for as inaccuracies. But when similar variations are noted, in the practice of men of extensive experience and eminence, in different exanthems, the charge he has chosen to advance falls to the ground. Curschmann states that we do not know whether the manner of infection or certain peculiarities of predisposition play a part in the duration of incubation. Sometimes in healthy persons we find an abnormally long period of incubation in small-pox. He explains it on the assumption of a temporary failure of, or at least an occasional diminution of susceptibility to, the virus. By analogy we find in the history of small-pox inoculation that such a temporary insusceptibility to contagion has existed—*e.g.*, it is shown by Dr. Gregory, that in the practice of Woodville the proportion of temporarily non-susceptible children was one in sixty, and of adults one in twenty. Again, we know, from the evidence placed before us in the shape of medical certificates of non-susceptible children, that a constitutional condition does exist capable of withstanding the action of virus-vaccinia. In my practice I have come across two cases in which children were insusceptible to vaccination for more than six months, although the operation had been carefully and repeatedly performed with punctures, scarifications, and blisters, and the lymph used was pure, colourless, and that supplied by the National Vaccine Department. It is stated that when we find long periods of incubation in vaccinated subjects, it may be assumed that the protective power of virus-vaccinia was capable of conferring immunity from the disease up to a certain date. From this it is evident that temporary insusceptibility, whatever may be its cause or causes, is one of the conditions of abnormally long periods of incubation. It was a disputed question till within the course of some years past that this period was prolonged when a subject was exposed to more than one infectious disease. For instance, when one was simultaneously exposed to scarlet fever and small-pox, it was supposed that one would follow the other, and consequently the period of incubation of the second disease would be prolonged by the length of the attack of the first. But such a proposition is untenable at the present day. I have seen cases of small-pox running their usual course with scarlet fever, varicella, measles, and whooping-cough. I find in the writings of authors, both at home and abroad, most dogmatic statements, laying down prognostications of the type of the disease from the duration of the period of incubation, especially in small-pox. These assertions, as Dr. Murchison truly remarks, are too often founded on deficient observation, and this can be seen from the records of my cases. Moreover, from his researches into the comparative study of this subject, he has clearly and ably demonstrated that such differences in the periods of incubation in different acute specific disorders do exist, without any influence on their severity.

I shall now pass on to a question of vital importance, and that is, Is the period of incubation infectious or not? It has been asserted by some that it is. Curschmann observes that it is possibly so, but he has no evidence to show. Dr. Murchison in his paper remarks—"So far as my knowledge extends there are, as yet, no facts on record which prove that acute specific disease can be transmitted during the incubation stage, either by mere contact or through the atmosphere." If a case could be demonstrated in which a Mr. X. exposed himself to the infection at a certain place, went home and lived with his wife, and Mrs. X. manifested the disease in herself about the same time as her husband, such

a proposition might be admitted without doubt. But here I record the history of ninety cases of the pre-eruptive stage in small-pox in whom there was prolonged exposure to the source of infection. I count the days of exposure to the source of infection from the first day of the initial stage (and in cases where this stage is absent, from the first day of eruption) to the day of admission of the first cases to the hospital, both stages inclusive. Two were exposed for one day, 3 for two days, 8 for three days, 16 for four days, 12 for five days, 17 for six days, 4 for seven days, 1 for eight days, 3 for nine days, 1 for ten days, and in 23 cases it was indeterminate.

These cases have been selected from the facts recorded in them having been accurately determined, and the evidence concerning them being unquestionable. They occurred among near relations and friends living together, occupying the same bedroom, and in some cases of children, husband, and wife the same bed. They clearly demonstrate that the period of incubation is non-infectious. From my limited experience I had formed a notion that the initial stage is also non-infectious; but subsequent facts which were brought to my knowledge, and the history of the cases I shall narrate, further enforced me to change my opinion. Notwithstanding, it is still to my mind a questionable point in those cases in which there is no initial stage or premonitory symptoms before the eruptive stage begins. The comparative study of this stage in other exanthems, and the experience of various other observers, tell us that it is infectious. Panum, who had the good fortune to study the pre-eruptive stage of measles on the virgin soil of the Isles of Faroë, and whose results as to the determination of this period were singularly uniform, tells us: "Although I am acquainted with no facts which demonstrate the possibility of transmission during the simply catarrhal stage, I am not prepared to establish the contrary." He states that it is highly contagious at the outset and during the eruptive stage. Its contagiousness during the catarrhal or desquamative stage is doubtful. Dr. Louis Thomas, of Leipzig, makes the same observations. Formerly it was held that measles is most infectious during the convalescent stage, as it was held that small-pox is most infectious during the suppurative and scabbing stage of the eruption. The erroneous opinion was due to the fact that people, living together, took the infection from the persons affected at the prodromal or the commencement of the eruptive stage, and the symptoms developed in them during the convalescence of the former. But the opinion is still held by some, forgetting the cause. Dr. Thomas states: "On the other hand, it is clearly proved that the effective contagion is produced at the beginning and during the prodromal stage; and it is precisely at this period that the greatest spread of the contagion takes place. Evidence of this is afforded by the only slightly varying duration of the incubation stage ascertained in the few cases . . . where the contact of the infected person with the source of contagion was but for a moment, or for one day. If we reckon in common cases, where a family is infected, fourteen days back from the outbreak of the exanthem in the second child attacked, we come noticeably often upon the first or the second day of the prodromal stage, or the last day of the incubative stage in the original case."

(To be continued.)

THE REMOVAL OF PLASTER-OF-PARIS BANDAGES.—Dr. Murdock states that a very convenient way of effecting this is to take a strong solution of nitric acid, and by means of a camel's-hair pencil to paint a strip across the bandage at the most desirable point for division. The acid will so soften the plaster that it may be readily divided by means of an ordinary jack-knife.—*New York Med. Record*, April 8.

A NEW ASYLUM FOR THE AGED AT PARIS.—The Paris Assistance Publique has just completed the purchase of a large quantity of land at Villejuif, one of the most healthy of the environs of the capital. On this it is about to build an immense *asile-hospice*, into which will be received aged persons of both sexes, who must be not less than sixty years of age, and must have inhabited the department of the Seine for at least five years. The hospital will accommodate 3000 inmates, lodged in separate chambers. A special cemetery will be attached to the establishment. The cost is calculated at nearly three million francs.—*Union Méd.*, May 9.

FILARIA SANGUINIS HOMINIS, LYMPHOCELE, LYMPHURIA, AND OTHER ASSOCIATED MORBID DISORDERS;

WITH A HINT OF OTHER WORM-DISEASES IN EGYPT.

By PROSPERO SONSINO, M.D. (Pisa University).

(Continued from page 524.)

Differences between Filarioid Emato-Lymphuria, and Bilharzia Hæmaturia, and other Disorders of the Urine.—The clinical features of filarioid lymphuria are so different from bilharzia hæmaturia that generally we can distinguish them without hesitation, before having recourse to the microscope. Opaque urine, looking quite like milk, which curdles very soon after emission, if not before, are characteristic exclusively of lymphuria, which is due to lymphorrhagia in the tract of the urinary way. As far as I know—and I have examined many hundreds of urines of bilharzial subjects,—bilharzia never gives place to lymphorrhagia.

A milk-like appearance of the urine may be assumed also when the urine contains much pus, or very large quantity of phosphates or of urates, but in none of those cases does it curdle spontaneously. Besides, in case of phosphates the opacity disappears on adding a little acetic acid; whilst in case of urates the urine becomes transparent by heat alone.

In filarioid lymphuria sometimes there is blood, which appears like streaks in the mass of the liquid, or gives a rose or pinkish hue to the total of the liquid. In Bilharzia hæmatobia disease, urine generally presents itself with its normal appearance, (a) transparent, clear, light amber colour. In this case, only after standing we are able to perceive some yellow or dusky grey flocculi at the bottom, in which the microscopical examination discovers the eggs of the worm. When there is hæmaturia the blood generally tinges only the last drops of the urine, and it is exceptionally that urines are entirely bloody.

The disorders of the urine due to bilharzia last for years, and when the disorder is of long standing the urine assumes generally the characters proper to the urine of cystitis, and sometimes also contains gravel, or is associated with symptoms due to stone in some part of the urinary tract. Filarioid lymphuria or emato-lymphuria presents instead intermittent attacks, which have between them long periods of apparent recovery.

Stone in the urinary tract is a not rare consequence or sequela to bilharzia disease, inasmuch as I have ascertained the flocculi with eggs of bilharzia may constitute themselves as nucleus of stone. I have no facts for suspecting that filaria disease may give origin in any manner to stone.

Coexistence of Filaria and Bilharzia, and Relative Frequency of these and other Worms in Egypt.—Filaria sanguinis and Bilharzia hæmatobia are, without doubt, worms quite distinct. They may be found in the same subject, as I have ascertained in two of my ten cases, but their association is quite accidental.

Filaria sanguinis seems to be geographically more largely distributed than bilharzia. This latter has been found only in the African continent and in some of the near islands (Mauritius); it is doubtful if it is also found on the Arabic shore of the Red Sea; whilst, besides in Egypt, filaria is already known in many parts of Asia and America, and in Australia. But, as far as I know, bilharzia is more common than Filaria sanguinis in Egypt. Among not less than 300 boys examined by me in the Governmental school of Tintah, in the year 1880, more than a third had hæmaturia, or had suffered from it. But of seventy-five autopsies which I performed on indigenous subjects in a period of six years, from 1875 to 1880, in Cairo, Lagazig, Benha, Mansoorah, and Tintah, and in many of which I made only a coarse search for the worm, I discovered its presence in thirty-eight subjects; but this result, I can argue, does not offer the just proportion of the infested subjects, as, being pressed by time, I was obliged to limit my examination often to the bladder only, and could not extend it to the other organs (ureters, spermatic vesicles, large intestines), which may present too the observations due to bilharzia. But my conviction, from all the facts that I col-

lected in my personal practice of nine years in this country, is that few persons in Egypt who drink habitually filthy water do not suffer from bilharzia in the course of a long life.

As for the frequency of Filaria sanguinis parasitism in Egypt, I have no positive evidence to establish it, but, as I have already said, I suppose that it is less than that of bilharzia. I have certainly examined the bloody urines (not lymphous) of many hundreds affected by bilharzia disease, and only twice has it happened to me to meet with specimens of filaria. If cases of this worm were more frequent, I should have met with its embryos more often in bloody urine. I have especially examined the blood taken by pricking a finger in many individuals affected with bilharzia, but till now in two cases only have I verified the existence of filaria embryos.

Anchilostoma Duodenale.—Another worm endemic in Egypt, *Anchilostoma duodenale* (Dubini), is, like bilharzia, very common in this country; out of nineteen dead bodies examined by me in the year 1877 at Kasr-il-ain Hospital, and in which I made special research for this worm, I found it in seventeen subjects—these subjects were all black soldiers. However, I often found anchilostoma when I searched for it, in the necropsies performed in other places in even native peasants.

Often anchilostoma is met only in small number, and in this case probably gives rise to no disorder. It is only when it is present in great numbers—many hundreds, as happens sometimes—that it causes that severe disease which has the features of a *progressive pernicious anæmia*, first pointed out by Griesinger under the name of *Egyptian chlorosis*, and which is known in Brazil under the name of *intertropical hypohæmia*. This is, perhaps, the same disease as that called by many authors *African cachexia* (Copland's Dictionary), observed in the negro slaves.

The presence of anchilostoma in living man may be ascertained only by finding its eggs or embryos in the alvine matters by the microscope; in the same manner that bilharzia disease is discovered by the eggs found in the urine, and also in the alvine matters.

It is very rare to find the adult anchilostoma in alvine matters. It seems that only very powerful purgatives succeed in bringing it out from its ordinary habitat, viz., the duodenum and jejunum.

In the dead body, when there are a few specimens of the worm, they may easily pass unperceived, as they are often hidden under the folds of the jejunum; and they may differ very little, as for their colour, from the colour of the mucous membrane, especially when the necropsy is made many hours after death. But when in numbers of many hundreds their detection is very easy, and even before the opening of the intestines we may be led to suspect their presence by the characteristic anæmic appearance of all the abdominal viscera, and especially of the jejunum, through the walls of which the very ecchymoses produced by the worms in the internal surface may be well distinguished. It was just in this manner that (in September, 1877, being at Florence) I could diagnose the presence of anchilostoma in the corpse of an anæmic young woman that was opened in the dead-room of Santa Maria Nuova Hospital, where for the first time the same worm has been found. (b)

It may be doubtful whether the dangerous special endemic anæmia is produced only by the continuous hæmorrhage effected by hundreds and hundreds of anchilostoma, or whether some alterations of the intestine walls caused equally by the worms, and which may interfere with the intestinal digestive powers, may not also contribute to the danger. But whoever has verified even once only—as has been just the case with Griesinger—the characteristics of a dead body where many hundreds of anchilostoma were found, cannot entertain the least doubt about the anchilostomatic origin of the same anæmia.

As for anchilostoma, I will only add that having found in a necropsy plenty of embryos of the worm on the interior surface of the intestine, I took the opportunity of measuring them. *Anchilostoma* embryo is about 0.430 mm. long, and is fourteen times longer than broad, whilst *Filaria sanguinis* measures from 0.218 mm. to 0.330 mm., and is more than

(a) "Ricerche intorno alla Bilharzia hæmatobia in relazione colla Ematuria endemica dell' Gitto, e nota intorno ad un Nematoideo trovato nel Sangue umano." Laono del Dott. P. Sonsino. Nel rendiconto della E. Accademia delle Scienze di Napoli. Fascicolo sesto, 1874.

(b) See "L'Anchilostoma duodenale in relazione coll' Anemia progressiva pernicioza," by Dr. Prospero Sonsino. In the medical journal, *L'Imparziale* of Florence, June and July, 1878; and some subsequent articles on *Anchilostoma* in the same journal.

forty times longer than broad. In this manner the embryo of anchilostoma reaches sometimes almost twice the length of filaria embryo, and is by far larger.

Conclusion about the Three Endemic Worms of Egypt.—I am sure that the three endemic worms—*Filaria sanguinis hominis*, *Bilharzia hæmatobia*, and *Anchilostoma duodenale*—play together a very important rôle in the generation of diseases of man in Egypt, and concur in the production of a large mortality of the natives of this country. This dangerous rôle unhappily is not sufficiently appreciated.

Other Worms.—Man in Egypt is infested frequently by other worms, particularly intestinal ones. *Tænia*, especially *inermis*, is a very common host both in the native and in the foreigner established in this country. I found it often in the necropsies, and once I collected two specimens of it in the same corpse.

Ascaris lumbricoides too is frequently observed—perhaps not so often as *Oxyuris*.

Another worm, that, for all I know, is not so rare as has been said, is *Echinococcus* (larval form). I found echinococcus cysts in the liver in two necropsies, once in Cairo and once at Lagazig. I extirpated a cyst in the thigh of a man at Lagazig, which proved to be an echinococcus. I examined another case of echinococcus of the liver in the practice of Dr. Pissa of this town. I saw a large abdominal tumour in a negro at the Diaconess Hospital, Alexandria, which equally turned out to be a suppurated cyst of echinococcus.

But it has been noted already by Bilharz, that worms are very commonly seen in Egypt, and that it is a frequent occurrence to find three or four species of them in a single individual. My observations confirm entirely this assertion of Bilharz. One of my ten filarious individuals has been at the same time the host of not less than four parasites, viz., *Filaria sanguinis hominis*, *Bilharzia hæmatobia*, *Ascaris lumbricoides*, and *Oxyuris*.

It may be well to say that my researches never led me to find either *Tænia nana* (Siebold) or *Distoma eterophyos* (Siebold), both discovered, but found, I think, only once in dead body—by Bilharz in Egypt. Equally, I did never meet here with *Tricocephalus dispar* (Rudolphi). As for *Pentastomum constrictum* (Siebold)—a larval form first discovered by Pruner Bey as encysted in the liver of negroes,—I have been acquainted with it through the kindness of Dr. Fenger, a distinguished Danish physician now resident at Chicago, who when in Cairo was successful in finding it. But *Pentastomum constrictum* is probably not indigenous to Egypt, as has been found only in men come from Central Africa.

As for *Dracunculus medinensis*, or Guinea worm, I saw many cases of this worm, but only in Nubians and negroes, not in natives who never left Egypt.

Presence of the Filarial Embryos in the Blood not Constant, but Periodical; and Differences in their Vivacity.—The length of our subtropical days and the splendour and clearness of the Egyptian sky accustomed me to the habit of working with the microscope only in diurnal hours, and so for a long time I had no experience in finding filaria embryos except as to those obtained in diurnal hours. Therefore I could never suspect the surprising fact discovered by Dr. Patrick Manson, that filarial embryos are found in the human blood in always increasing number the more the hour in which the blood is drawn out approaches to midnight, and in number always decreasing the nearer the hour is to noon.

I used generally to make my observations between 9 a.m. and 4 p.m., and very rarely could I find more than one or two specimens of the embryo in a drop of blood spread over several covering-glasses. At times I did not discover any, and, as far as I can remember (not having taken note of the hour), it was between 11 a.m. to 4 p.m. that it happened to me to search for filaria without result.

I remember very well the incident happened to me when at Lagazig in 1876. I had left Cairo, where resided the boy in whom I had for the first time found the filaria. In Lagazig I had searched for the same parasite without result. I wished to verify the finding another time in the same boy, and I made arrangements to have him in Lagazig. For six days I prepared some slides with blood taken from the boy by pricking each time two of his fingers, and yet I could not find any filaria. It was only on the seventh day that I succeeded in finding one specimen. (c)

Now I recollect well that, being in the morning occupied with other business, the blood had been taken in the first days at or after noon, and it was only on the seventh day, when the boy was compelled to leave Lagazig, that I made my observation early in the morning.

It was only lately that I provided for making some comparative experiments to test the proportion of the embryos in blood at different hours. But it has been impossible for me to perform systematic experiments similar to those performed by Manson at Amoy, Myers at Formosa, and Mackenzie in London, having myself no hospital practice; and even if my professional occupations allowed me to devote a long time to such experiments, my patients would not easily submit to them.

However, my comparative experiments, performed in two filarious individuals, have convinced me that really in the hours of night, and in proportion with the nearness to midnight, filariæ are generally more abundant in blood than in the diurnal hours. I cannot for the moment give a satisfactory explanation of this surprising fact; only I will say that I agree with Dr. Myers, that the life of embryo filariæ in the blood must be very short and ephemeral; otherwise, in the individuals in whom there is no drainage of lymph, or lymphorrhagia, the number of the filariæ in the blood should necessarily augment every day in a notable proportion; but this has not been the case in my experience.

As to Dr. Myers's opinion (*London Medical Record*, January 15, 1882)—that in blood taken at night the filariæ are always more vigorous and active than those in blood taken in diurnal hours.—I must say that I cannot confirm the fact, as the filariæ offered me great differences in their movements and activity, independently of the hour at which the blood was extracted. But I have already remarked that generally I found the filariæ of lymphocèle more active than those of the blood, which difference may be due to the fact that the former fluid is not so dense as the latter. As for the lymphous urine, where I more generally found only dead filariæ, I attribute this event to the natural acidity of the urine, as pernicious to the life of the worm. I may mention also that I had occasion to observe, on adding a solution of half per cent. of chloride of sodium to the blood, that the vitality of filariæ has not been interfered with.

It is, I think, interesting to remark that in the examination of the blood of filarious subjects I observed several times an histological element, which appeared to be like a cast of a filaria. I think it was a simple amorphous and membranous layer. Having taken the measure of this element, I found that its length was about the same as that of a filaria specimen, but of larger diameter. I think I recognised in it the very cuticle of the embryo, and so I have reason to think that the moulting of the filariæ takes place also in the blood, and that Lewis's envelope is exactly the beginning of the moulting, just as it has been asserted by Cobbold.

Filarial Embryos in the Mosquito.—It remains yet to me to give an account of *Filaria sanguinis hominis* in the body of the mosquito, as an intermediate host of the human parasite. I have only had opportunity to make these observations in these later days, in which I was able to obtain mosquitoes taken from the interior of a gauze bed-curtain where a filarious person had slept. The mosquitoes or gnats that served to the experiments are of the common species found here. They have the body rather clear and measuring about 6 mm. or 7 mm. in length, have a long proboscis, antennæ (or feelers) with thirteen articulations, abdomen with seven segments, and wings with several nervatures—about six or seven, two or three of which bifurcated. The male has plume-like antennæ. Its palpi are longer than in the female. (I must remark that my experiments were made in the course of January last, when, the season running rather cold, the mosquitoes perhaps are not so active in their habits of feeding, and consequently all were not well gorged with blood. I examined thirty-six mosquitoes, but only in nine I found the parasite. This result may be explained also on account of the fact that the filarious individual slept in the same bed with a not filarious person. This circumstance rendered my researches obviously more laborious.)

In those nine mosquitoes I found embryonal filariæ in greater or less number, not only in the blood of their stomachal cavity, but also in the tissues of the insect, of both the abdominal and thoracic segments. I found them also amidst the tissues of the head, and once upon a wing.

(c) Comunicazione del Dott. Sonsino alla Reale Accademia delle Scienze di Napoli, nel rendiconto del Marzo, 1876.

Some of the embryonal filariæ were dead, but others still living and in full activity of movements. In the stomachal cavity once I saw them in so large a number that I could count no less than fifty under the enlargement of $\times 80$. This last find has been verified in a mosquito that was taken out from the bed after more than forty-eight hours. In the tissues I have never seen filariæ in so large a number as in the stomachal cavity, yet I found in them also living ones. But in every case the filariæ had always the same appearance as those taken directly from the human blood. If any difference existed, it was in their length, which I had, however, difficulty to determine exactly. Besides this, only in some specimens seen with a high power ($\times 650$) I could perceive a little difference about the mouth, which appeared as a nipple, if not a *piercing apparatus*, projecting more or less from a foreskin. Such appearance I have never distinguished in the embryos taken directly from the human blood. I have searched for, but never found anything of, the transformation described by Manson (see Cobbold, "Entozoa," 1879) as a larval form of filaria, and yet I examined mosquitoes forty-eight hours, or three days, after they were taken out from the bed. Having left some mosquitoes gorged with blood in a bottle with a little water, three days afterwards I found the mosquitoes half drowned, and, examining the few drops of water, I discovered a filaria having the same appearance as those taken directly from human blood.

The result of my experiments confirms undoubtedly Manson's observation that filaria-embryo finds in the body of the mosquito a host adapted to its life. But from all I saw, I suspect that *Filaria sanguinis hominis* passes only into the stomach of the mosquito, and then into the rest of the body, without undergoing so great transformations as those described by Dr. Manson. I think also that the passage would be only transitory, and accomplished generally in two or three days, and that mosquitoes play with filariæ a rôle similar to that performed by some birds with vegetable seeds. At any rate, it seems to me that the result of my experiments accords rather with Lewis's than with Manson's, so far as I know them (Cobbold, "Entozoa," 1879). And for all that, I conclude that this subject is one to be studied again.

Prophylaxis and Treatment.—But, whatever may be said of the mosquito as an intermediate host in the vital cycle of the parasite, it seems to me always more probable that man is infected by it through the medium of drinking filthy water. Therefore, drinking pure and always well-filtered water is the best measure in view of preservation from this parasite, as well from bilharzia.

As for the treatment of the infection, we know so far no radical remedy, viz., one that will kill the adult worm in the human body. Certainly the observations made in other countries have certified that there are some natural processes by which man may be freed from the worm, as this may come out through some superficial abscesses (*Helminthoma elastica*, Bancroft) or with the fluid of lymphocoele (Bancroft). We may fairly suppose that it may pass out through the lymphous urine; but we have no means at our disposal for procuring or facilitating this favourable event. Only surgical means may answer when filaria adult is found in a part of the system that may be extirpated, as Lewis and Manson have shown in cases of lymph-scrotum.

In the case of lymphuria, however, I think that some good may be obtained by the use of some adequate astringents, which may check that drainage so dangerous, by acting either on the walls of the ruptured vessels, or on the plasmatic nutritive fluids. Among the astringents which I found most active, I may put in first line tinct. ferr. perchl., and ac. gallicum. Rest also may contribute very much to check lymphorrhagia, and the use of tonics and good nourishment may be useful, only with certain cautions for the latter, as I have in mind that the great distension of the lymphatic vessels may in some way render more difficult the healing of the parts that have suffered from the obstruction caused by the worms. But I think that whoever knows well the origin of lymphuria, cannot have any trust in such treatment as Carlsbad salts, or urethral injections of decoction of pomegranate bark, which, however, I have heard some patients assert had been the remedies to which they owed their recovery.

Cairo, Egypt.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LIVERPOOL ROYAL INFIRMARY.

SERIES OF HERNIA CASES.

(Under the care of Mr. RUSHTON PARKER.)

(Continued from page 524.)

Case 10.—Irreducible Omental Umbilical Hernia—Prophylactic Herniotomy—Excision of Omentum—Ligature of Sac alone—Complete Cure.

CATHERINE W., aged fifty-seven, having a hernia about the size of a hen's egg, being also a confirmed bronchitic, submitted to operation under ether on July 16, 1881. Adherent omental bands were severed, and tied with catgut, but the whole mass not proving reducible after some efforts, the pedicle was tied in several places with carbolised catgut, and the stump reduced after cutting off the mass beyond. The peritoneal lining of the sac was now stripped up to the innermost margin of the abdominal opening, and tightly tied with two thick catgut ligatures as nearly flush with the inner surface of the abdominal wall as was possible, and the residue beyond the ligatures cut off. Some of the skin was removed, and the layer of subcutaneous fat closed over the stump of the sac by deep skin sutures quilled over rubber tubes, thus approximating the gaping skin edges, into which interrupted sutures were put. Lister's precautions, with due drainage and gauze dressings, were applied, and all proceeded safely by first intention and granulation without suppuration. On July 30 there remained only a few granulating points unhealed, with boracic ointment on boracic lint for dressing. A plate of sheet zinc in a swan's-down calico binder was worn as a truss pending firm cicatrisation. She went home in August, healed. On October 15 she called and showed a depressed white cicatrix, firmly adhering to the deepest parts of the umbilicus, and perfectly resisting all intra-abdominal pressure. She has been, as usual, suffering more or less from bronchitis all winter, and coughing much, but was reported early this year to be continuing in the same perfect state as regards the cure of the hernia.

Remarks.—The essential principle of total abolition of the peritoneal lining of a hernial protrusion and the perfect occlusion of its former neck, by one and the same act, is well illustrated in these three cases. The simultaneous inclusion of an omental pedicle, as in Case 8, might fairly be claimed as a factor contributing additional preventive security, and a possible source of fallacy in the exact explanation offered. But in Cases 9 and 10 no such plea arises. In planning a cure of hernia, the eradication of the peritoneal protrusion, nipping it, as it were, in the bud, by circumferential occlusion, is mechanically far simpler and more perfect than the method of attempted occlusion by general adhesion with sutures, invagination, etc. The almost invariable success of the former, and the frequent failure of the latter, as methods, leave apparently no choice as to the principle upon which the curative result is most universally, effectually, and simply to be attained and explained. The result in femoral cases is most easy of attainment, and serves as a type for the rest. Umbilical herniæ are most like femoral, anatomically and mechanically. The difficulties imagined and encountered are greatest in large herniæ with wide necks, yet here the principle contended for is perfectly applicable and easily successful; all that is required being the separation of the peritoneal lining, and its firm and double, or even treble, ligature at the mouth of the sac, as in a sack of meal or potatoes. Without a peritoneal protrusion there can be no hernia, as may be witnessed in such operations, when the most violent expulsive efforts, in coughing, etc., not only fail to disturb the ligatured point, but appear to scarcely strain it. The occlusive effect of the ligature is just as simple and just as perfect on the neck of a hernia as on an artery, where no one ever thinks of trying to procure occlusion by stitching the walls together. The simile is indeed closely applicable to the event of ligature of an arterial branch flush with the main trunk, or to that of a main trunk immediately below the

offset of a large branch; and the unimpeded circulation of blood past the ligatured point, comparable to the smooth gliding of intestines or other non-adherent viscera over the similarly tied and obliterated branch of the peritoneal sac.

Case 11.—Congenital Inguinal Hernia in a Boy—Radical Herniotomy, with Ligature of Sac—Imperfect Result.

Robert R., aged twelve, had a very large right scrotal hernia, over six inches long and four wide, of the congenital variety. On March 15, 1881, under ether and Lister's antiseptic precautions, the sac was separated from the cord and tied with catgut; a small residue was left around the testis in an attempt to construct a closed tunica vaginalis, and the intervening portion removed. Catgut drainage and sutures and gauze dressings were used; but suppuration and even decomposition were not prevented, though speedily allayed and perfectly controlled on removing all dressings, smearing on boracic ointment, and frequently squeezing out discharge. In the operation the sac was inadvertently tied rather low in the inguinal canal instead of at the internal ring, but it was hoped, on recollecting this shortly after, that subsequent precautions might suffice to prevent a return of the hernia. But all control of the lad utterly failed, as he got up and danced and turned summersaults in bed, as soon as ever he could do so without pain to himself, whenever the nurse's back was turned. Notwithstanding that, the absence of hernia and the apparently successful cure existed up to six or eight weeks after operation. He was seen on December 1, 1881, however, with quite a moderate hernia, and was said by his mother to be an utterly wild and hopelessly unmanageable street-arab.

Case 12.—Acquired Inguinal Hernia—Ligature of Neck of Sac—Perfect Cure.

Patrick R., aged seven, brother to Case 11, having a left inguinal hernia, was submitted to a similar operation on May 24, 1881. The incision in all these inguinal cases was made over the inguinal canal, rather than the scrotum, for easier access to the internal ring. On this occasion the ligature of catgut was placed high up, the sac below being stripped and removed. A similar but perfectly harmless course of the wound followed, and a totally successful result, without the faintest sign or threat of return, was maintained up to December 1, 1881, when he was last seen.

Case 13.—Acquired Inguinal Hernia—Ligature of Neck of Sac—Perfect Cure.

William Kelly, aged eight, submitted to operation on the right side, as in Case 12, for a scrotal hernia the size of a large hen's egg, on June 7, 1881. In the last two cases the boys were up and about considerably under a month, and no truss or physical precaution was attempted or appeared necessary, even on account of the cicatrix, after superficial healing was completed. He was last seen on December 1, 1881, free from hernia and from all evidence of likely return.

Remarks.—The simple success with a femoral hernia in Case 8 led, on examination of Case 11, before deciding on a method of operation, to the natural question as to what are the real obstacles to a simple cure in inguinal cases. With them, in attempting radical cures by "open herniotomy" (as distinguished from subcutaneous invaginations, sutures, or ligatures), difficulty has been notoriously met with on account of the "pillars of the ring," with which it has been necessary to deal in attempts to procure adhesion of the hernial sac in the inguinal canal. What if the sac were tied at the internal ring, and thus cut off from the peritoneum at its very origin, and the pillars left to take care of themselves after the strength of the wound-cicatrix has become established? The pillars are inevitably separated by the gliding between them of the smallest hernia if the neck and sac be once large enough to easily admit contents. But if there be no peritoneal protrusion there can be no ready, and certainly no immediate, hernia of viscera, and it matters not then whether the pillars of the ring be separated or close, slack or tight. The abundant evidence, then, as it turns out, already published, of the satisfactory occlusive effect of ligature was not known at the time, so the elucidation of the principle in this particular had to be entered on experimentally in the last three (inguinal) as in the previous three cases. In the series 8 to 13 it was demonstrated that for all herniæ, reducible or irreducible, in any of the

three common localities, the simplest and securest way of obtaining a radical cure is by ligature of the peritoneal protrusion at its offset from the main serous sac, the tissues outside being dealt with according to their own requirements and the ordinary principles of correct surgery. By these last six cases the principle contended for became established in Liverpool, and has been subsequently put into successful operation by several surgeons in a number of instances which is already considerable.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, MAY 27, 1882.

THE HAMPSTEAD SMALL-POX HOSPITAL CASE.

On Monday last, the 22nd inst., judgment was, at last, given in the House of Lords in the case of the Managers of the Metropolitan Asylum District v. Hill and others (Appeal No. 1). We need not repeat now in detail the history of this case, which has been at its various stages fully noticed in our columns as it dragged its slow length along. But it will be remembered that the appellants, the Managers of the Metropolitan Asylum District, selected, after much inquiry, as the site of their Hospital in the north-west district a piece of land at Hampstead, consisting of about eight acres, upon which, in spite of a vigorous and prolonged resistance, they built their Hospital, and that the Hospital was on several occasions used for fever and small-pox patients. In November, 1876, the present action was brought by several persons having residences in the neighbourhood of the Hospital, who claimed damages for the injury to the value of their property by reason of the establishment of the Small-pox Hospital, and asked for an injunction to restrain the appellants from using their Hospital for the reception of persons suffering from small-pox. The action came on for trial before Mr. Baron Pollock and a special jury in November, 1878, when the trial lasted eleven days. The contention on the part of the respondents was that the Hospital was a nuisance in itself, owing to the germs of the disease of small-pox being carried by the air on to their premises; and it was further alleged that the appellants had been guilty of negligence in the management of the Hospital. The jury found in favour

of the plaintiffs on nearly all points. Subsequently the appellants obtained a rule for a new trial on the grounds of misdirection, and that the verdict was against the weight of evidence; and the Queen's Bench Division subsequently made the rule absolute. This decision was affirmed by the Court of Appeal, who, however, imposed the condition that the appellants should pay the costs of the first trial within two months. It was against the imposition of that condition that the appellants now appealed. The case was argued some weeks ago, when judgment was reserved.

The Lord Chancellor, in delivering his judgment, observed, first, that the conditional order of the Court of Appeal having lapsed owing to the non-performance of the condition by the appellants, the principal question to be determined was, whether there ought to be a new trial? In his opinion, if it was right to make an order for a new trial, the Queen's Bench Division had also been right in directing that the costs of the first trial should abide the event. He then considered the nature of the question in the case, and the character of the evidence concerning it. The jury had found in favour of all the plaintiffs on two issues—that the Hospital was, *per se*, a nuisance; and that there had been defects in its management which made it a nuisance to the proprietors of property who brought the action, in a way or in a degree in which it might not have been if well managed. He thought that the evidence relating to the second issue was insufficient to justify the finding of the jury if the evidence on the main issue were set aside—the insufficiency of the evidence lying chiefly, if we understand Lord Selborne rightly, in that it could not support the verdict in favour of *each and every one* of the plaintiffs. Lord Selborne was not disposed, however, to agree with the judges of the Queen's Bench Division in thinking that the verdict on the second issue was so unsatisfactory as alone to be sufficient cause for a new trial; he held rather that the verdict on the secondary issue ought not to stand if on the main issue a new trial is ordered. And as to the main issue, he decided in favour of a new trial on the grounds that the question was a scientific one, and that the evidence was not satisfactory. "I consider it important to observe," his Lordship said, "that the jury had not, in this case, to find a verdict on a common question of fact, depending on the memory or the credit of witnesses, who (if they remember accurately and speak truly) must be capable of understanding what they have seen and heard. Nor was the question one of scientific knowledge, ascertained and verifiable by experiment, as to which any expert, properly qualified, could speak with the same certainty as concerning things which are the direct objects of sense. It was a problem of medical science, not yet fully solved, but still within the region of *bonâ fide* controversy. I think it would be a fallacy to apply to a case of that kind the ordinary reasoning, according to which the verdict of a jury on a question of fact ought not to be disturbed when there has been evidence on both sides, unless the preponderance of evidence against the verdict is strong and clear." And after some remarks on the necessity of considering with strict impartiality the importance of the question of a new trial, and the consequences depending on its proper decision, Lord Selborne went on to say:—"I think that there ought to be a new trial in this case, because the verdict of the jury, upon the main issue, does appear to me to have been founded upon a state of evidence which is not to my mind satisfactory, having regard to the nature and importance of the question to be determined. I abstain from going into any of the details of that evidence. I think it is sufficient to say that the theoretical part of the evidence does not seem to me to be sufficient to support the verdict;

and that there are deficiencies in the practical part, which might be (and I think ought to be) supplied, before it can be satisfactory to draw from it the conclusions which the jury has drawn." His Lordship then criticised at some length the evidence given to prove that cases of small-pox occurred in great excess within an area of 300 yards round the Hospital, as compared with other parts of the parish, and to point out the weakness, in his opinion, of the evidence in other respects; and concluded his judgment by moving to reverse the order appealed from, and to restore the order for a new trial, as made by the Queen's Bench Division. Lord O'Hagan considered a new investigation desirable, because the matters at issue were of great novelty and vast public importance. The other Lords concurred, and judgment was reversed, with costs, both in this appeal and in the Court below.

The Lord Chancellor's judgment is, indeed, an excellent argument in favour of submitting the main question in this case to a special tribunal or to a jury of practical and scientific experts, but a very poor one in justification of referring it back to one of the ordinary courts of law. The only excuse that can be offered for the lame conclusion—a new trial of the old kind—must be that nothing else, we suppose, could be done. Lord Selborne's remarks as to the kind of evidence that is needed to make any new trial at all satisfactory are very sensible and pertinent, though they are not new. The Local Government Board and the Asylum District Managers may perhaps, however, take them to heart now they have been uttered from the Woolsack.

THE EXAMINATION REGULATIONS OF THE ROYAL COLLEGE OF SURGEONS.

THE Council of the Royal College of Surgeons are still working in a leisurely fashion, and somewhat after the manner of the continuous interrupted current, at the revision and reform of the Regulations relating to the Examinations for the Membership and Fellowship of the College; but we regret to observe that one or two of their late utterances on the subject have the character of liberally watered compromises rather than of clear and ripened opinions. At the meeting held on April 13, the Council passed a regulation intended to secure that students shall strictly and properly observe the existing regulations as to the sequence in time of their studies and examinations. The pith and intent of the new regulation apparently are that no student shall be allowed to go up for the Pass examination till two years after he has passed the Primary examination. It runs thus:—"Candidates commencing their professional education on or after October 1, 1882, will not be admitted to the Pass or final examination for the diploma of Member until after the expiration of two years from the date of their passing the Primary or anatomical and physiological examination for such diploma, except in the following cases, viz." This seems decided and clear, but it is followed by a whole string of exceptions. Mr. Christopher Heath, who brought the subject before the Council, commenced his proposal thus:—"That on and after October 1, 1882, no candidate be admitted to the final or Pass examination for the diploma of Member until after the expiration of two years from the date of his passing the Primary or anatomical and physiological examination"; but the report of the Committee, while recommending the adoption of the principle of the resolution, altered the beginning of it to "Candidates commencing their professional examination on and after October 1, 1882," etc.; and with this amendment no fault can be found. As the resolution stood at first it would have had a retrospective effect, which would have been somewhat unfair to the students; while now the students who begin their

professional education on or after October 1, 1882, will know that they will be required to have passed the Primary examination two years before they can be admitted to the Pass examination, and thus they will have full warning to make good use of their first two years of work. But the Council of the College also added such a number of exceptions to their new regulation as bid fair to almost stultify it. Exception is to be granted—"1. When a candidate, before presenting himself for the Primary examination, shall possess a recognised degree or diploma in medicine or surgery, or shall have completed the curriculum of professional education for the diploma; 2. In the case of a candidate who, being desirous of obtaining the Fellowship, shall fail to present himself for the Primary examination for the Membership at the end of his second year of professional study, but who shall pass at the end of his third winter session the Primary examination for the Fellowship, it being required in such case that not less than one year of attendance on the surgical practice of a recognised hospital shall intervene between the date of his passing the Primary examination for the Fellowship and the date of his presenting himself for the Pass or final examination for the diploma of Member." Some other excepting provisions follow, and the list winds up with a very literal general saving clause:—"And in the case of a candidate who, from some unforeseen circumstances, shall fail to present himself for the Primary examination on the completion of his second year of professional study, it being left to the Court of Examiners to determine whether in any case the candidate shall or shall not be required to comply with the regulation." The value of the regulation will, of course, very largely depend on the consideration and the strictness—on, in short, the wisdom—shown in working it, so that no harshness or unfairness may be inflicted on any candidate, and yet the spirit of the regulation, that two years of studentship shall be devoted to the practical study of medicine, surgery, and obstetrics, shall be honestly carried out.

At the same meeting Mr. Cooper Forster moved—"That in future all candidates for the Primary or anatomical and physiological examination, whether for the diploma of Member or of Fellow of the College, be only required to attend one course of lectures on anatomy, instead of two courses of such lectures; and that candidates for the Final examination, whether for the Membership or the Fellowship, be required to produce the following certificate—namely, of having attended during three months a course of surgical or regional anatomy, with demonstrations." The first part of the motion was referred to the Nomination Committee, and the second to the Court of Examiners. These two proposals are still under consideration, and we venture to express the hope that neither of them will be recommended for adoption. We cannot understand in what way the first can encourage or facilitate the study of anatomy; and we therefore object to it, though we by no means would have it supposed that we think the results of the present system of teaching anatomy are satisfactory. On the contrary, they are, on the whole, deplorably unsatisfactory; but whether the fault lies most with the students, the teachers, or the examiners, it would be difficult to say. Mr. Forster's second proposal, for the requiring of a special course of instruction in regional anatomy, is commendable in itself, but not as taking the place of a second winter's instruction in general anatomy.

At the last meeting of the Council, on the 9th inst., two more resolutions were adopted, also with the objects of securing the better education of the candidates who present themselves for examination, and a fuller and more exact observance of the College regulations. Mr. Thomas Smith had moved, at the Council meeting held

in April—"That it be referred to the Court of Examiners to consider and report to the Council whether, or not, it is desirable that all students rejected at the Pass examination for the diploma of Member should be placed in the same category as regards the time required to elapse before they can present themselves for re-examination." The motion was adopted; and the Court reported to the Council that "it is not necessary to make any alteration in the regulation in respect of the power vested in the Court for shortening the period of reference"; but added, "In the opinion of the Court, however, it is desirable that an additional standing rule should be enacted, giving to the Court, in cases where extreme ignorance is exhibited, the power of lengthening the period of reference from six to nine or twelve months, as the Court shall determine." The Council adopted the report of the Court, thus affording one more illustration of the saying that history repeats itself, though it is to be observed that in this instance the characters of the chief actors were reversed. Mr. T. Smith, unless we misread his proposal, moved the Council to bless the student by empowering the examiners to mitigate the penalty for failure in the Pass examination, and, lo! the Council do exactly the opposite. The power of lengthening the period of reference to nine or twelve months is, however, only to be exercised in cases of "extreme ignorance," and we think it will be generally acknowledged that if a four years' student exhibits "extreme ignorance" of the subjects of the Pass examination, he is not likely to fit himself in less than nine or twelve months to be let loose on the public as a qualified practitioner. It will be observed from the report of the Court that a standing rule exists, providing that a referred candidate may be re-admitted to examination in less than six months, if the Court think fit; though this power of mercy has very rarely, we believe, been exercised. Why? Are all those who are referred so ignorant as to deserve the full penalty? As there are some candidates who only just succeed, so surely there must be some who only just fail. Have the Court of Examiners felt unequal to the labour of differentiating as to penalty between these last named and the hopelessly bad candidates? It may be expected that if under a new standing rule the examiners are granted larger powers of punishment, they will remember to make more use of the power of mitigation, which they have hitherto left almost in abeyance.

Another resolution, passed at the same meeting of the Council, has for its object to secure the study of anatomy and physiology during the first year of professional study. The Nomination Committee, in conference with the Committee on Additional Examinations, had had under consideration the following resolutions of the Council, dated May 13, 1880:—1. "That, under the powers given by Section 14 of the by-laws, the Council do proceed, as soon as is practicable, to institute an examination in elementary anatomy and physiology, and in such other subjects as the Council shall from time to time determine, to be passed by candidates for the Membership of the College, at or after the expiration of their first year of study. 2. That it be referred to the 'Committee on Examinations in Anatomy and Physiology' to prepare, and submit to the Council for approval, the necessary regulations for defining and conducting such examination. 3. That it be referred to the Committee on By-laws to prepare the revised or new formula which will be required for the rearrangement of the payment of fees, by the institution of such examination." The joint Committee reported that, however desirable, it is not practicable to institute such an examination at the College without an additional charge to the students; but that, in their opinion, it is desirable that, in lieu of it,

an examination in elementary anatomy and physiology should be instituted at the several recognised schools of medicine after the end of the first year of professional study; and that any student commencing his professional education on or after October 1, 1882, should not be admitted to the Primary examination for the diploma of Member of the College without the production of a certificate from his teachers that he had satisfactorily passed the examination in question at his medical school. The report was adopted by the Council. It may be thought that the Council might have found out in rather less than two years that there were apparently insurmountable difficulties in the way of carrying out the desired examination at the College; but let that pass. The examination is to be, but the burden and responsibility of it are transferred to the anatomical and physiological teachers at the medical schools; and it does not appear that the Council of the College propose to assist them by defining the area of the examination, or in any way other than by making the examination compulsory. Certainly it seems a questionable step to make it compulsory on the student to pass a professional examination, over which the College will have no kind or degree of control or supervision; for we do not suppose that the Council think of imitating the General Medical Council in establishing visitations of examinations. We do not mean that the power of the Council of the College to take such action is questionable, if they see fit to do so; but it does appear very doubtful what practical value and meaning an examination so conducted will have. Is it not almost certain that it will have different, and possibly very different, values in the different schools? We have but little doubt, however, that the teachers in the various medical schools will be glad to have placed in their hands such an additional power in inciting students to work well during their first year; and if the power so given is exercised wisely and well, great good must come out of it.

EHRlich's METHOD OF DETECTING TUBERCULAR BACILLI IN THE SPUTA.

AMONG the many interesting specimens of micro-organisms shown to a large assemblage at the rooms of the Royal Medical and Chirurgical Society on Tuesday evening last, the 23rd inst., there were two of especial interest, showing the bacilli of tubercle. They had been prepared by Dr. Ehrlich, Assistant in the Medical Clinique, Berlin, according to a new method which promises by the excellence of its results to supersede that of Koch. One was a specimen of bovine tuberculosis, the giant-cells of which were the centre of interest; and the other was a preparation of phthisical sputum. It is chiefly on sputum that Dr. Ehrlich has made his observations, but his method is available also for sections. We take the following interesting practical details from the reports (*Deutsche Medicinische Wochenschrift*, May 6) of a communication made by him on May 1 to the Medical Association of Berlin (*Verein für innere Medizin*). He extracts, with a pair of needles, a small particle of the sputum, and presses it between two cover-glasses. He then separates the cover-glasses, and gets a thin layer of sputum on each. The cover-glasses are allowed to dry in the air, and, in order to fix the albumen, they are either kept for an hour at a temperature of 100° C. to 110° C., or they are passed two or three times through the flame of a Bunsen's burner. The colouring fluid is then prepared. Water is shaken up with an excess of anilin oil, and filtered through moistened filter-paper. To the clear fluid so obtained an alcoholic solution of methyl-violet or of fuchsin is added, drop by drop, until the fluid becomes opalescent. The cover-glasses, coated with the dried sputum, are then set swimming in

this opalescent fluid, and in fifteen or thirty minutes they will have coloured an intense blue or red, according as the violet or fuchsin had been used. Dr. Ehrlich now departs further from Koch's procedure; he does not colour the substance in general with vesuvin, but he decolourises it with strong acids, the bacilli retaining the blue colour. One volume of officinal nitric acid is mixed with two parts of water, and the blue-stained preparations are put into this strong acid. In the course of a few seconds the colour fades, a yellowish cloud passes across the preparation, and leaves it white. Everything in the preparation of sputum is now decolourised, except the bacilli, which are intensely blue. But the technical difficulties of seeing them are still considerable, and it is further desirable to colour the ground substance yellow in the case of a methyl-violet preparation, and blue in the case of a fuchsin preparation. In the specimen of phthisical sputum prepared by Dr. Ehrlich as above, and exhibited on Tuesday last, the bacilli were very numerous, very uniform in size and form, and very distinct, the magnifying power being about 900 diameters and the illumination strong. Dr. Ehrlich has examined the sputa from twenty-six pronounced cases of phthisis, and he has found bacilli in them all, and most abundantly in acute cases. In most cases the bacilli are found in the very first specimen made, and in the very first field of the microscope. The entire process of drying and colouring may be done in less than an hour. The bacilli were not found in sputa other than phthisical. A friend sent him a specimen purporting to be phthisical sputum, in which Dr. Ehrlich could find no bacilli; and, on inquiry, it proved to have come from a case of empyema with perforation of the lung.

THE WEEK.

TOPICS OF THE DAY.

AT the commencement of the present year grave reports were in circulation as to the unhealthy condition of the town of Brighton, and these reports excited much surprise and indignation locally, as it was asserted that no abnormal amount of sickness prevailed in the borough, although an outbreak of small-pox had certainly occurred at Hove, due to importation from London. It is interesting therefore to notice the report of Dr. William Kebbell, Medical Officer of Health for the Hove District, for the quarter ended March 31 last. From this document it would appear that, taking the population of the district as 22,000, the mortality for the quarter was at the rate of 19 per 1000 persons living; this rate was increased by an outbreak of whooping-cough amongst the poorer inhabitants, which caused the deaths of thirteen young children. Bronchitis, pneumonia, and convulsions in children were likewise more than unusually fatal, these diseases alone causing nearly one-half of the entire number of deaths. Why bronchitis and pneumonia should have proved exceptionally fatal, Dr. Kebbell is at a loss to understand, seeing that the past winter has been unusually mild. The zymotic death-rate for the quarter was 3·8 per 1000, and is accounted for as follows:—From whooping-cough 13, from small-pox 4, from scarlet fever 3, and from diphtheria 1. Dr. Kebbell adds—"I have now the satisfaction of being able to report that, so far as our information goes, there is not a single case of small-pox within the district." The epidemic throughout its whole course, he remarks, was confined almost entirely to the labouring classes in the parts of the town where it first appeared, and there was not a single death from this complaint amongst the middle or upper classes either in the neighbourhood or elsewhere. Taking the mean of the last seven years, the death-rate in Hove has been only 13·2 per 1000, compared with an annual average death-

rate in England and Wales of 21.5 per 1000, and in the large town populations of 23.6 per 1000. The zymotic death-rate during the same period was only 1.6 per 1000, whilst in all England and Wales the average during the past decade has been 3.36 per 1000. To this note on Dr. Kebbell's report it may be added that our last week's issue contained a notice of the Registrar-General of England's return for the first quarter of 1882, which may be studied with advantage by those who believe that the sanitary management of Brighton is perfect.

The centenary festival of the Clare Market Dispensary, founded in Carey-street in the year 1782, removed early in the present century to Bishop's-court, Lincoln's Inn, and transferred to its present address in Stanhope-street, Clare Market, about twelve years ago, was recently celebrated at the Freemasons' Tavern, under the presidency of Mr. W. H. Smith, M.P. The object of this, one of the oldest medical charities of its class in London, is to provide gratuitously the best medical and surgical advice for such poor persons as are not in the receipt of parish relief, and are resident in any part of the metropolis. Within a fixed area of the dispensary patients are attended at their own homes when requisite. The applicants for relief are always very numerous, numbering about 4000 annually. The Committee acknowledged with gratitude the kind support the charity had received during the century of its existence, from the judges, the bar, and other members of the legal profession. The charity, being situated in the immediate vicinity of the Inns of Court, had been the means of administering to the urgent needs of many industrious and humble dependants of the legal profession, and consequently has been not inappropriately styled a legal charity. The entire expenditure for the year ending June 30, 1881, was £724, and the number of patients 4043. The Committee earnestly appealed for additional assistance, and in the course of the evening subscriptions and donations amounting to £400 were announced.

At a meeting of the London Society for the Abolition of Compulsory Vaccination, recently held in Bloomsbury, Mr. C. H. Hopwood, M.P., in the chair, the annual report was submitted by the Committee. It referred at great length to the operations of the past year, which it appears were even more extensive than those of the preceding year. Resolutions of the usual type were, of course unanimously, adopted, viz., "That, inasmuch as eighty years' experience of vaccination, and thirty-seven of compulsory vaccination, with a longer period of compulsion in Sweden, Denmark, and some of the German States, has demonstrated its complete failure as a defence against small-pox: resolved, that further compulsion is wholly unjustifiable, and that the Vaccination Acts ought to be immediately repealed"; and the following, demolishing the reputation of calf-lymph:—"That, as no positive evidence exists of the superiority of calf-lymph as a preventive of small-pox, while its dangers have been conclusively established, its provision by Government as an alternative for humanised lymph furnishes no justification of continued compulsion." The positive and dogmatic statements of the resolutions are no doubt very restful and comforting to weary, and weak minds.

A deputation from the inhabitants of the Ward of Billingsgate attended the last meeting of the City Commission of Sewers, to present a memorial calling attention to the necessity which existed for improving the approaches to the fish market. The reports of the Corporation, it was shown, had thoroughly established the absolute necessity for new streets in the district, and they had received confirmation in the valuable report of Mr. Walpole, the late Inspector of Fisheries. Moreover, the Home Secretary had recently expressed a hope that the Corporation, or some other public

body, would undertake the necessary work to facilitate the traffic of the ward, and to afford means of ingress and egress to Billingsgate Market, where 130,000 tons of fish were sold annually. The petition was referred to the Finance and Improvement Committee for consideration. This latter Committee brought up at the same meeting a long report on references in relation to the services, outside their ordinary duties, of the officers of the Commission in carrying out during the last six years the provisions of the Artisans' and Labourers' Dwellings Act in the City, at a cost of nearly a quarter of a million sterling; and amongst the gratuities recommended and ultimately adopted was one of £450 to Dr. Sedgwick Saunders, the Medical Officer of Health.

A meeting of the Council of the Hospital Sunday Fund was held at the Mansion House last week, under the presidency of the Lord Mayor. His Lordship, in expressing his cordial co-operation with the efforts of the Council, intimated his intention of attending with the Sheriffs and the Corporation in state at St. Paul's Cathedral and Westminster Abbey on Sunday, June 11 next, the day appointed for the annual Hospital Sunday collection. The Rev. S. Hansard thought that those who had received treatment, and who were constantly making use of the medical charities of London, should, as far as possible, be made alive to their duties to contribute on Hospital Sunday to the full extent of their means. It would almost appear that the reverend gentleman had forgotten the existence of the Hospital Saturday movement, which was inaugurated expressly for the purpose of giving the class referred to by him an opportunity to contribute to hospital incomes in the metropolis; or mayhap he recognises the results of it as so imperfect as not to be worth mentioning. Before separating the Council proceeded to make the necessary preparations for the collection to take place on the 11th proximo.

Amongst the manifold labours imposed upon His Royal Highness the Prince of Wales it could probably have been little expected that dining with the Metropolitan Board of Works officials would have been included. Nevertheless, on Saturday evening last the Heir-apparent did honour Sir J. McGarel Hogg with his presence at the annual dinner given by that gentleman to his colleagues at Willis's Rooms. Perhaps the solution of this latest proof of Royal condescension is to be found in the speech made by the Prince in returning thanks for the Queen and the Royal Family, in concluding which he said, "we are ready on all occasions which lie in our power to fulfil any public duty." His Royal Highness, however, chiefly intended, no doubt, to recognise publicly the vastness and importance of the duties and powers entrusted to the Board. After the praises bestowed upon the Board by His Royal Highness for their efforts to carry out the important duties entrusted to them, it is much to be hoped that they will see their way to moving with rather more celerity in the matter of Thames purification, artisans' dwellings, and other important metropolitan improvements.

At the seventh ordinary meeting of the Statistical Society, held last week under the presidency of Mr. Caird, C.B., Mr. Burdett read a paper on "The Relative Mortality after Amputations in Large and Small Hospitals, and the Influence of the Antiseptic System of Treatment upon such Mortality." Mr. Burdett's contention was that the rate of mortality after serious surgical operations is lower when such operations are performed in small hospitals, or those of the cottage class, than in the large general hospitals of the country. He also showed by statistics that the antiseptic treatment of such cases had resulted, to a great extent, in equalising the death-rate in the cottage and larger hospitals.

A short discussion followed the reading of the paper, but no feature of any particular novelty was elicited.

Within the last few days the parish churchyard of St. George-the-Martyr, Southwark, which has been planted and laid out as a public garden, was opened by the rector, the Rev. B. Cassin, and dedicated to the public. The churchyard overlooks the High-street, Borough, and is the centre of one of the most densely populated parts of the metropolis. Another churchyard, attached to the parish church, Horselydown, close to Tooley-street, has also been laid out in a similar manner, and will be opened to the public in the course of a few days. This garden is nearly twice the size of that of St. George's. And the parish churchyard of Bermondsey is undergoing similar transformation, and will shortly be dedicated to the public for all time as a recreation-ground. The Metropolitan Board of Works bears one-half the cost of converting these churchyards into gardens, the other half being borne by the parish in which they are situated.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

At an extraordinary meeting of the Royal College of Physicians held on Tuesday, the 23rd, the following gentlemen were admitted Fellows of the College:—Dr. Thomas Robinson Glynn, Dr. Robert Leamon Bowles, Dr. Daniel John Leech, Mr. Francis Henry Champneys, M.B., Dr. James Ross, and Dr. James Matthews Duncan. The College seal was affixed to the copy of the by-laws and regulations recently enacted. The Examiners reported that in April nine gentlemen presented themselves at the second examination for the licence of the College, of whom three were approved; and sixty-six candidates presented themselves at the first examination, of whom fifty-five were approved. A letter was read from the University of Sydney, asking the College to recommend a person as Professor of Anatomy and Physiology; and the same request having been made to several other bodies, the College declined to take any action. A report from the Committee on Harvey's tomb was read and adopted. A report was also read on the sale of poisons, and was referred back to the Committee for reconsideration. A report on the visitation of examinations was read, ordered to be circulated among the Fellows, and to be considered on Tuesday, the 30th inst.

MEMORIAL TO THE LATE PROFESSOR ROLLESTON.

It is proposed to hold a meeting of the subscribers to the above memorial on Thursday, June 1, at 3 p.m., in the Library of the Royal College of Physicians, for the purpose of determining the form that it shall take.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The annual general meeting of the Society was held on Wednesday, May 17, at 5 p.m., in the library of the Royal Medical and Chirurgical Society. The chair was taken by Dr. Pitman, Vice-President, in the unavoidable absence of the President, Sir George Burrows, Bart. On the recommendation of the Court of Directors, Dr. Bisset Hawkins was elected a Vice-President in the place of Dr. Billing, deceased; and Mr. Steet, Dr. F. Weber, Dr. Burdon-Sanderson, Mr. Evershed, Mr. T. S. Wilkinson, and Mr. Rivington were elected in the place of the six senior Directors who retired by rotation. The other officers were eligible for re-election, and were re-elected. From the financial statement of the Acting Treasurer, it appeared that a sum of £2947 had been distributed during the past year to sixty widows, fifteen orphans, and three recipients of relief from the Copeland Fund. The expenses for the

year had been £181 15s. 8d. The funded property had been increased by the purchase of £466 Metropolitan Consolidated Stock. No legacies had been received during the year. The report was read, and showed that the number of members of the Society had fallen to 368: five new members had been elected during 1881; nine had died, and three had resigned or ceased to be members. The number of widows on the books at the end of the year was fifty-eight, that of orphans nine, and three orphans were on the Copeland Fund. Two fresh widows had been elected; four had died or ceased to be eligible. Six orphans had become through age no longer recipients of grants. A discussion followed the reading of the report, on the desirability of considering whether any alteration could be made in the mode of granting relief, and in the admission of members, with the view of making the Society more useful and popular; and a resolution was passed, referring the subject to the Court of Directors. A vote of thanks to the editors of the medical journals was carried unanimously. A vote of thanks to the Chairman, Dr. Pitman, for his kindness in presiding at the meeting, closed the proceedings.

PHYSICIAN-IN-ORDINARY TO THE QUEEN IN SCOTLAND.

It is officially announced that the Queen has been pleased to appoint Dr. Thomas Grainger Stewart, Professor of the Practice of Physic in the University of Edinburgh, to be one of Her Majesty's Physicians-in-Ordinary for Scotland, in the room of the late Sir Robert Christison, Bart. We are very glad to congratulate Dr. Grainger Stewart on receiving this high honour and distinction. No better choice for the post could have been made, for Dr. Stewart has honestly and honourably won his way into the first rank as a scientific worker and teacher, and as a practitioner.

THE METROPOLITAN ASYLUMS BOARD.

At the recent meeting of the Managers of the Metropolitan Asylums Board, a cheque was drawn, after considerable discussion, for Messrs. Rennie, shipbuilders, as compensation for injuries through the mooring of the small-pox hospital-ships off their premises; and Sir E. H. Currie explained that it would be impossible to move these vessels while there were small-pox patients on board: at the present moment, he said, there were 100 cases on board under treatment. The comparative returns of the number of patients in the several Asylum-hospitals during the past fortnight showed an increase of nineteen under treatment, as compared with the preceding period. The number of small-pox patients remaining under treatment was 291, which showed a decrease of forty-five on the previous fortnight. Dr. Fowler moved that "the return of the cases of dementia incidental to senility, sent from the several metropolitan unions and parishes to Caterham, Leavesden, and Darenth Asylums during the three years ended December 31, 1881, be forwarded to the Local Government Board; and that the attention of that Board be especially directed to the statements in the reports of the committees of management of Caterham and Leavesden, to the effect that 'the admission of so large a number of old and infirm patients who could be satisfactorily treated in work-houses' not only 'has caused an appreciable increase in the expenditure for maintenance and general management,' but also necessarily 'appropriates accommodation which might otherwise be more advantageously applied.'" The words quoted, he explained, were those of the committees which had dealt with the question, and which had arrived at the conclusion that, notwithstanding the remonstrances of the Managers, the practice was followed by many boards of guardians of sending to these asylums patients who were only suffering from dementia incidental to advanced age. During the three years referred to no fewer than 122 such

patients had been sent to the different hospitals and asylums of the Board. He was willing to admit that the old people had been sent to the asylums of the Board in perfect good faith. He wanted the return to be sent to the Local Government Board, in order that that department might take the responsibility of deciding whether or not this class of patients should be admitted to the institutions of the Board. Dr. Griffith seconded the motion, which was agreed to. The Board finally adjourned until June 10.

THE PARIS WEEKLY RETURN.

THE number of deaths for the nineteenth week of 1882, terminating May 11, was 1140 (610 males and 530 females), and among these there were from typhoid fever 36, small-pox 20, measles 33, scarlatina 9, diphtheria and croup 68, dysentery 1, erysipelas 12, and puerperal infections 5. There were also 58 deaths from tubercular and acute cerebral meningitis, 236 from phthisis, 27 from acute bronchitis, 91 from pneumonia, 81 from infantile athrepsia (27 of the infants having been wholly or partially suckled), and 38 violent deaths (28 males and 10 females). The number of deaths registered was less than for any of the four preceding weeks: and as compared with the eighteenth week there is a diminution in typhoid, small-pox, and measles, with some increase of scarlatina and diphtheria. The births amounted to 1203, viz., 630 males (458 legitimate and 172 illegitimate) and 573 females (433 legitimate and 140 illegitimate): 92 infants were either born dead or died within twenty-four hours, viz., 55 males (44 legitimate and 11 illegitimate) and 37 females (23 legitimate and 14 illegitimate).

PATHOLOGICAL SOCIETY OF DUBLIN.

At a special meeting of this Society, held on Saturday afternoon, May 19, in the theatre of the School of Physic, Trinity College, the American acrobat, Warren, gave a demonstration of his power of voluntarily producing dislocation, or rather subluxation, of several joints, and of throwing into independent action certain individual muscles or groups of muscles, such as the biceps, platysma, pectorals, serratus magnus, diaphragm, sartorius, gastrocnemius, etc.

GUY'S HOSPITAL BIENNIAL FESTIVAL.

A VERY large and enthusiastic meeting of Guy's men took place at Willis's Rooms on Thursday, the 18th inst., the occasion being the biennial festival dinner. Mr. Edward Cock, Consulting Surgeon to the Hospital, was in the chair, and about 230 sat down to dinner. After the usual loyal toasts, the Chairman proposed the toast of the evening, viz., "Prosperity to the School of Medicine and Surgery attached to Guy's Hospital," in terms which stirred the hearts of all old Guy's men present, and called forth loud and repeated cheers. Mr. Lund, of Manchester, in a very felicitous speech, and with the happy humour and tact which characterise all his speeches at such gatherings, proposed the health of the Chairman. Among other speeches on the occasion, Dr. Wilks returned thanks for the "Acting Medical and Surgical Staff and Lecturers," and in doing so he referred at some length to the internal arrangements and changes at the Hospital, which, he said, had had the effect of replacing the former autocratic by a constitutional government, and had practically thrown great powers into the hands of the staff, whereby they were now able to obtain almost whatever they desired, whilst there still continued to the students of Guy's that inestimable boon of having free and unrestricted access to the wards to follow up their clinical studies at all times. Owing to the Fellowship examination at the College of Surgeons, Mr. Birkett and Mr. Cooper Forster were unavoid-

ably prevented from attending the festival, as they otherwise would have done. The spirit of the meeting must have reassured those, if any, who doubted it, that the *esprit de corps* and the love for their *Alma Mater* is as strong as ever in all Guy's men.

PROTECTIVE INOCULATION FOR SPLENIC FEVER IN GERMANY. THE Commission appointed by the Prussian Minister of Agriculture to report upon the alleged protection from splenic fever to animals previously inoculated with cultivated virus, began its observations at Packisch, in Prussia, on April 5 last. The Commission is presided over by Herr Beyer, of the Prussian Ministry of Agriculture, and includes Professor Virchow, Graf von Zieten-Schwerin, Professor Dammann, of the Hanover Veterinary School, and two others. The cultivated virus was brought from Paris by one of M. Pasteur's assistants, and the arrangements are under the superintendence of Professor Rolloff, the Director of the Berlin Veterinary School. Fifty sheep and twelve oxen of proved healthiness were taken, and one-half of them set aside; the other half received, on April 15, a first protective inoculation with the cultivated virus of splenic fever, or virus of mitigated intensity. On April 19 the same twenty-five sheep and six bullocks received, in the presence of the Commission, the second inoculation with protective virus. May 2 was the date fixed for the whole of the animals to be inoculated with virus of full intensity, and on the 5th the members of the Commission were to proceed to Packisch to observe the difference between the effects of the intense virus on the protected and on the unprotected. The Commission would also take note of the number of animals, if any, dying of the protective inoculation itself; and a question for settlement at a later stage would be the potency of the protective influence when the animals are exposed, after an interval, to the poison of splenic fever operating in the usual way. The report of the Commission will be an interesting and authoritative document.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

ON Tuesday, May 23, a deputation from this Corporation waited on Earl Spencer, K.G., at Dublin Castle, to present an address on the occasion of his resuming the office of Lord Lieutenant of Ireland. The President, Mr. Samuel Chaplin, of Kildare, read the address, which expressed the gratification of the College in again welcoming to the country a nobleman who had already exhibited so warm an interest in its welfare; declared their warm and devoted loyalty to Her Majesty the Queen; and spoke of the horror of the College at the crimes committed in Dublin on the evening of the Lord Lieutenant's arrival. His Excellency, in his brief reply, referred to the Royal Commission on the Medical Acts. He attached, he said, the utmost importance to the subjects under consideration by the Commission, and added that their report will shortly be published; but his Excellency let drop no hint as to what the tenor of the report is likely to be.

ANNUAL REPORT OF THE BELPER UNION RURAL SANITARY AUTHORITY.

THE Belper Union Rural Sanitary Authority rules over two districts—Alfreton and Belper. The Medical Officer for the former, Mr. Edward Gaylor, in his report for the year 1880, gives full details of his transactions during the period in the thirteen parishes under his charge. The population of these he estimates to be about 18,710 persons, and the death-rate for 1880 will be found to be a very favourable one, and equal to that of any of the healthiest of the rural districts in the kingdom, having a mining and manu-

facturing, as well as an agricultural, population. He also bears testimony to the more ready appreciation of the efforts of the sanitary officer than was the case six or seven years ago, and a retrospect of the work done since that time shows a vast improvement in the general condition of the parishes, although over so large an area plenty of work still remains to be done. Small-pox, Mr. Gaylor remarks, seems as though it could not exist in the Belper Union Districts, and, so far, has afforded invaluable evidence of the efficacy of vaccination; for in no union district, he says, has vaccination been more thoroughly and systematically carried out. Mr. Allen, the Medical Officer for the Belper district, in his remarks for the year 1880, also reports a very favourable condition of affairs. The population of the twenty parishes under his charge he estimates at 17,036; the birth-rate for the period having been 34.6, and the death-rate only 16.3 per 1000. The three great sanitary wants of his district he states to be—means for proper isolation of infectious diseases, apparatus for disinfecting clothes and bedding, and the adoption of some trustworthy scheme for the notification of infectious diseases. Both Mr. Gaylor and Mr. Allen have felt it their duty once more to press upon the attention of the Authority the urgent necessity which exists for providing a hospital for contagious diseases, and Mr. Allen adds, that in a recent outbreak of scarlet fever in his district, whole families would have escaped the disease had he possessed the means of isolating the first case which occurred.

MEDICAL PARLIAMENTARY AFFAIRS.

The Pollution of the Thames.—In the House of Commons, on Monday, May 22, Sir W. Harcourt, in reply to Mr. T. Rogers, said that he had written to the Metropolitan Board of Works upon the polluted condition of the Thames between London-bridge and Gravesend, and he had received an answer. He hoped in a day or two to make a statement which he trusted would be satisfactory, with a view to a thorough investigation of the matter.

Deleterious Milk.—Mr. Mundella, in reply to Lord G. Hamilton, said that very few local authorities have carried out the provisions of the Dairies Order, as they have no special officers for the inspection of dairies. The Privy Council have been in communication with the Local Government Board on this subject, and as the question relates to public health rather than the prevention of animal disease, it has been agreed to bring in a short Bill to repeal Section 34 of the Contagious Diseases (Animals) Act, and to authorise the Local Government Board to consider the question of tuberculosis among cattle as one affecting the public health. The Bill will be shortly introduced.

The Public Health Act Amendment Bill for Scotland passed through committee of the House of Lords.

TREATMENT OF BUBO WITH CARBOLIC ACID.—Dr. Morse Taylor, U.S. Army, in the April number of the *American Jour. of Med. Science*, publishes a paper on the abortive treatment of bubo by the injection of carbolic acid. He reports twenty cases in which he certainly obtained remarkably successful results, and he states that within the last seven years he has treated nearly 150 cases of various forms of lymphadenitis arising from specific and non-specific causes, and when he saw them before the formation of pus was well established he had not failed to arrest the process immediately and allay pains in a few minutes. His method is to inject from ten to forty minims of a solution, containing eight or ten grains to the ounce, directly into the tissue of the inflamed gland.

RELIEF OF ASTHMA.—Dr. Roberts Bartholow, in a case of old asthma with the gradual development of emphysema and some bronchitis, prescribed fifteen grains of iodide of potassium and twenty grains of bromide of potassium, four times in the day. "This combination," he says, "may bring about a remarkable degree of relief in a very short time. It is always useful in cases of emphysema, and particularly where there is any spasm of the bronchial tubes."—*Louisville Med. News*, May 6.

THE ELECTRIC LIGHT.

(From a Correspondent.)

THE following notes, from a trusty correspondent, which are the outcome of a study of the electric light at the Crystal Palace, may interest, and perhaps instruct, some of our readers:—

It is now no longer a question whether a good steady electric light can be obtained sufficiently subdivided to enable us to use it in our dwelling-houses and rooms. The rapid progress which has been made within the past two or three years is quite marvellous, and gives every reason to expect that still further improvements will be made, and that some of the existing difficulties—apart from the perhaps needlessly heavy initial cost—will shortly be overcome. Up to within a very few years, electricity—except for telegraphic communication and electro-plating—has been perhaps most utilised for popular lecture purposes, and although many of its wondrous phenomena and powers have been demonstrated, their practical adaptation to every-day life is only just beginning. Among the most powerful incentives to this new departure was Swan's discovery, or rather re-discovery, of the principle of incandescence. I say re-discovery, for an "incandescent electric lamp" was patented as far back as 1845. Still, in its present form, the incandescent lamp is an invention, so to speak, of to-day. The chief difficulties to overcome in this lamp appear to have been the manufacture of the carbon filament, and the prevention of its waste. These filaments were, I believe, first made from a certain kind of bamboo, but they are now manufactured from cotton darning-thread, which is first treated with a mixture of two parts of sulphuric acid and one part of water (a mixture which has the power of converting substances—paper and the like—into what is called vegetable parchment. The cotton is then enclosed in air-tight moulds and exposed to a red heat for some time. A filament of carbon is thus obtained, which possesses considerable strength and elasticity. The durability of these filaments, when incandescent, is due to the perfect nature of the vacuum in which they are heated.

It will be advantageous, before saying anything more about the lamps, to describe the electric power by which they are lighted, and its mode of production. I cannot do better with this object than follow your scientific contemporary, *Engineering*, and state only the essential points, referring those of your readers who require more information to technical works on the subject. Copper wire is practically the best conductor of the electricity after its generation. These electric conductors between given points must be completely joined and completely insulated, or the electric current will leak and its power be partially wasted. This question of insulation is one of the utmost importance at the present moment, and is receiving great attention. On its proper solution the question of electric lighting appears largely to depend.

Electricity is obtained from three principal sources—friction, voltaic batteries, and "dynamo" machines. Electric force for lighting purposes is almost exclusively generated from "dynamos." These machines are a series of magnets between which coils of insulated wire, mounted on "armatures," are made to rapidly revolve. They are well represented by the common magneto-electric machine, turned by a handle, known to every medical man, the principle of which is, that a current of electricity is established when the coils of wire are made to pass through the magnetic field. The "magnetic field" is the area in which magnetic influence radiates around the terminals of a magnet (the ends of the horse-shoe), just as heat much within the same area would radiate from them if they were red-hot. The productive power of a "dynamo" depends on the number of revolutions made by the armature.

There are at present two great systems of lighting—the "arc" and the "incandescent." Of the former, the Brush, the Jablochkoff, the Crompton, the Siemens, the André, are the chief forms; while the Swan, the Edison, the Maxim, and the Lane-Fox represent the latter. The former are adapted for lighting large areas or open spaces; the latter, the "incandescent" lamps, are more suitable for rooms, offices, and the like. The "Swan" and other forms of incandescent lamps show the subdivision of the electric light, a necessary step before it could stand any chance of superseding gas or oil

lights. Whatever form, however, the electric light assumes, it depends for its action on the fact that when a portion of a conducting wire offers resistance to the passage of the current, the resisting portion becomes intensely heated. Any wire, however good a conductor, offers some resistance, and some heat is necessarily produced.

If, for instance, you introduce into a "circuit" a very thin wire for a thicker one of the same material, the resistance is so much increased that the wire becomes white hot and melts, while the thicker portion is hardly warmed. Carbon is a very bad conductor, and when a fine filament of it is made to take its place in a circuit, the resistance is suddenly increased and a brilliant white light results. As compared with copper wire, carbon offers a thousand times more resistance. But the carbon filament would be consumed in a moment if exposed to the atmosphere: its non-destructibility depends entirely on the exclusion of oxygen. Hence the principle of all the "incandescent" lamps is to enclose the carbon in a glass globe which has been thoroughly exhausted of its atmosphere.

The so-called "candles" for arc lamps are made by grinding good coke to powder, mixing with syrup, and after running into moulds under great hydraulic pressure, baking them at a red heat in fire-clay boxes for several weeks, carefully excluding them from the air. They are then electro-coppered to facilitate good contact with the conducting wire from the dynamo, so that no power may be lost.

I cannot say much about the "storage" of electricity at present, for this subject is as yet in its earliest infancy. A current from a dynamo is made to pass for many hours through acidulated water, in which a number of bags containing red-lead, with a leaden plate in each, has been placed. A portion of the red-lead is thus converted into metallic lead. It may be stated that no electricity is stored; the electricity sent in only effects a change in the red-lead and in the metallic lead, which enables them to reproduce electricity when they return to their former condition.

I have now given a very brief account of the subject, excluding technicalities as much as possible—following the plan of *Engineering*, to whose columns I am indebted for much of my information. It only remains to point out some of the many advantages which the introduction of the incandescent light into our houses will bring with it. I do not propose to touch on the commercial aspects of the question, for such would hardly befit this journal, even if I could speak with authority: these questions, which largely resolve themselves into cost, are now being seriously handled by capitalists, and doubtless will soon find their proper level. The relative advantages of gas and of the electric light can never be fought out, however, on the sole question of relative cost. There are so many and such palpable advantages in the electric incandescent lights, that comparisons, at all times odious, become here all but impossible. Gaslight is convenient, without any doubt, when once laid on, and in good working order. But gas is poisonous, both as provided and after its combustion, and the air of a room in which it has been burnt for an hour or two becomes hurtful to human beings. As a matter of less importance, its burnt products are harmful to vegetable life, as well as to pictures and other works of art. Further, gas is highly dangerous, as the frequent explosions one reads of amply testify. If, therefore, we can substitute for it a light which is more brilliant, and which burns *in vacuo*—one which does not vitiate the air we have to breathe, nor superheat it, and which leaves no soot or other half-burnt products behind to soil our houses—there can, I think, be but one opinion as to the welcome which it will find in every home, so soon as science has mastered the details necessary for its supply. There are probably some dangers, of which we are not as yet sufficiently aware; but before the incandescent lights have been in use as long as coal-gas has they will, I doubt not, have all been overcome.

TREATMENT OF GONORRHOEA.—Dr. Hearn recommends the following combination for reducing the amount of discharge in gonorrhœa. The prescription was originally one of Prof. Pancoast's:—*Rx.* Alumin. pulv. ʒj., cubeb. pulv. ʒviij., myristicæ pulv., cinnam. pulv., aa ʒij., m., f. chart. xx. One of these may be given several times a day, and in some cases the amount of cubebs may be greatly increased. Whenever the discharge is profuse, a few doses of these powders will reduce it.—*Phil. Med. Times*, April 8.

FROM ABROAD.

TREATMENT OF SYPHILIS.

DR. G. H. FOX read at the New York Materia Medica Society a paper on the treatment of syphilis (*New York Med. Record* for March 11), in which he lays down the following propositions:—1. Mercury is the most valuable curative agent of which we have any knowledge. The positive results which follow its employment are such as to convince any competent observer as to its efficacy. 2. It is, however, an overrated remedy; for while it will lessen the manifestations and shorten the natural course of syphilis in most cases, it will not always produce a speedy and beneficial effect, as generally believed. 3. Patients would derive great benefit if more value were attached than at present to hygienic measures, instead of relying solely on the specific action of mercury. "Remedial agents often acquire a fictitious value by reason of the fact that patients improve during their administration. We know that mercury is not inert, and have ample proof that it can accomplish a great deal. The improvement which takes place in patients is not wholly the effect of the mercury, but is in great measure due to the *vis medicatrix*." 4. Mercury is not essential to the cure of syphilis. The disease has a tendency to run its course, and in the majority of cases is far less malignant than it is supposed to be. If the patient is of sound constitution, and the infection is mild, it usually runs its course without injury to the health. "It may be said that such patients will suffer more from severe lesions in later years. I believe that these patients are as thoroughly cured as those that had taken mercury." 5. The internal administration of mercury is preferable to its use in the form of inunction, vapour-baths, etc., in all cases of constitutional disease. 6. The dose of mercury usually given is too large. "In my own experience I have never observed any benefits result from the combination of various salts of mercury, as recommended by Bumstead, or by the frequent change from one preparation to another." 7. The duration of mercurial treatment should vary according to the character of the case. There are cases of mild and cases of severe syphilis. Mild syphilis does not require mercurial treatment. "There are cases which demand two, three, or perhaps five years of treatment. But it is utterly impossible to fix a certain time as the duration of treatment in all cases. . . . My own practice is to give mercury in every case during the existence of any symptom of the disease, whether it occurs early or late. In the early period I continue it for six months after the last symptom has yielded; I then stop it, and await further developments. If the symptoms reappear, I revert again to mercury, and continue perhaps for two or three months after the disappearance of the latest symptom. In late syphilis I give mercury to subdue any growing symptom, and then stop."

Of iodide of potassium Dr. Fox has a high opinion.

"I believe that in the early stages of syphilis it is an invaluable therapeutic agent. In the stage of efflorescence, I must admit that the drug has little or no effect upon the cutaneous manifestations. In ulceration of the tongue and mucous patches I have seen good results following its use, when mercury had been given for several weeks with no effect. In the cure of cephalalgia and arthritic pains, associated with the first outbreak of syphilis, it displays its remarkable power. Of its great value in late syphilis I need not speak. Its power is often exerted in a most brilliant manner when its administration is preceded by a course of mercurials. The iodide is best prescribed in an aqueous solution, a cubic centimetre containing one grain. It is a remedy which no patient ought to be compelled to take for a great length of time. It does its work quickly or not at all, and when unnecessarily continued is sure to do harm. For every case of syphilis that I have seen benefited by immense doses of the iodide, I have seen at least two in which large doses have done harm. I do not deny the value of large doses in certain cases, but I protest against the continuance of large doses in chronic syphilis. When there is dyscrasia and a weakened state of the digestive organs, I have great faith in the iodide of starch."

"Iron in the treatment of syphilis is of very great value. It deserves to be ranked with mercury and the iodide. Its power to combat the anæmia which is invariably present

in the early stage of syphilis renders it a most invaluable adjunct of mercury. I should prescribe it for a patient presenting chancre or initial lesion, and give it as a routine in the secondary lesions. It tends in a slight degree to lessen the probability of subsequent manifestations. In the weakened state of the system, associated with late syphilis, the value of iron is too well known to require mention; but in the early stage of the disease its value seems to be unknown or unappreciated. I employ the tincture of the chloride in daily doses of ten to fifteen drops. *Cod-liver oil* is a remedy which is not infrequently of service. When an individual with a strumous diathesis is affected by this disease, its symptoms are apt to be severe and prolonged, and amenability to mercury is greatly lessened. In these cases the use of cod-liver oil alone, or in connexion with iron, is likely to be productive of good results. In late syphilis of an ulcerative type I have repeatedly seen mercury fail to do good at first, while after the administration of the oil for a month or two it has accomplished all the good that could be expected from its use."

In the discussion which followed, Dr. Sturgis observed that although many cases of syphilis will get on very well without mercury, there is a risk for the future incurred by not giving it, for it is impossible to say whether the case will turn out well or ill. He has a much higher opinion of inunction as a means of administering mercury than Dr. Fox; but he believes that the value of iodide of potassium as a curative agent has been much overrated, although it forms an excellent adjuvant. He has found the iodide of starch so unsatisfactory that he has abandoned its use. As regards the combined use of mercury and the iodide, he believes the effects attributed to the iodine are really due to the mercury, the iodine seeming to favour the solution of the mercury and render it more active. Thus, after a course of mercury and iodine, slight ptialism and diarrhoea may be produced, while no such results had followed when mercury had been used alone.—Dr. Johnson agreed with Dr. Sturgis in believing that the iodide renders mercury which had remained inactive in the system for a time much more active. It acts in an analogous manner with regard to lead, in poisoning from which it is not infrequently administered. By prolonged use it helps to eliminate the lead, although the first stage of its action is to increase the activity and poisonous effect of this.—Dr. Castle, in using the iodide, either alone or with mercury, generally in the later stages of the disease, has had the objects in view of inducing the absorption of pathological products, and the relief of the pains which occur at the later stage of the malady; and he does not believe that iodine in any form exerts any other specific effect. As soon as it is eliminated its effect ordinarily ceases, and to secure this it must be continued for some time. He agrees with Dr. Fox regarding the different ways different persons are affected by symptoms, and has met with many very mild cases; but he has treated these also with mercury, with a view rather of preventing subsequent developments than because their condition at the time required active medication. In such cases, as in those that are more severe, he has combined it with the use of tonics, and as thorough an attention to hygiene as practicable, believing this quite as important as any specific treatment.—Dr. Morrow observed that, in the general habit of treating syphilis with mercury and iodine in all its stages, he had also treated many cases without mercury, and had been unable to detect any difference in the evolution of secondary symptoms in either set of cases. He also pointed out the fact that a much longer course of mercurial treatment (at least four years) is now deemed to be required for protection from subsequent manifestations than was considered necessary some twenty-five or thirty years ago, when a course of six or twelve months was regarded as sufficient. This would seem to show a growing lack of faith in the curative properties of mercury.

SANITARY INSTITUTE OF GREAT BRITAIN.—At the annual general meeting, held at 9, Conduit-street, W., on Wednesday, May 17, Professor F.S.B.F. de Chaumont, M.D., F.R.S., in the chair, a favourable report was presented by the Council on the progress made by the Institute during the past year. The Chairman gave an address, and the officers for the ensuing year were elected, the President being His Grace the Duke of Northumberland, K.G., and the trustees Sir John Lubbock, Bart., D.C.L., F.R.S., and Thomas Salt, Esq.

REVIEWS.

Transactions of the American Gynecological Society. Vol. V. for the year 1880. Boston: Houghton, Mifflin, and Co., the Riverside Press, Cambridge. 1881.

THIS volume comes before us with its usual splendour of typography, paper, and binding, and with a group of papers of much interest and importance. The President for the year of which the proceedings are before us was Dr. Marion Sims, and the book opens with his inaugural address. In it, however, he has not given his constructive imagination play in the regions of gynæcology, but confined himself to suggesting some changes in the rules of the association. Besides this address, the volume contains fourteen papers, nine of which deal with the surgical treatment of disease—a sufficient evidence of the tendencies of American gynæcology at present.

The first of the non-surgical papers is by Dr. Theophilus Parvin, of Indianapolis, on secondary puerperal metrorrhagia. It is an interesting essay, containing nothing very novel, except some rather florid writing; Sainte-Beuve, Shakespeare, and Ben Jonson being laid under contribution to illustrate the subject. A paper by Dr. Eve, of Augusta, Georgia, on occlusion of the gravid uterus, contains a narrative of a case, and references to a few others. The longest paper in the volume, extending over 106 pages, is by Dr. George J. Engelmann, of St. Louis, on "Posture in Labour: an Ethnological Study." In it the author gives an elaborate account of the position women have assumed in labour in the past, before civilisation had modified their habits, and among savage tribes in the present. The paper is profusely illustrated, and the drawings, as may be imagined, are highly quaint and curious. The object of this laborious monograph is to aid in ascertaining what is the best position for women to assume during labour, by the consideration of the attitude to which uncivilised women, it is assumed, are guided by the light of nature. We cannot say that we are so sanguine as the author appears to be of the value of this method of applying ethnology to the solution of controverted scientific questions. The interrogation of Nature and the right interpretation of her answers is an art which taxes the ingenuity, patience, and insight of the greatest intellects, and in which savages are little fitted to be our exemplars. The widely differing customs in this matter among the different tribes shows that if they have sought the guidance of nature, it has been with indifferent success. The practical conclusions at which Dr. Engelmann arrives are, briefly, that in ordinary labour the patient should be given greater liberty, and allowed to follow the dictates of her "instincts" more freely than is generally the case, and that on the whole the semi-recumbent position is the best. The next non-surgical paper is by Dr. James R. Chadwick, of Boston, on the hot rectal douche. He narrates some cases in which various symptoms, for the most part subjective, disappeared after the patient had had hot water frequently injected into her rectum. It seems to us that he too readily takes *post hoc* for *propter hoc*. The remaining one is on the value of quinine in obstetric and gynæcological practice, by Dr. Henry F. Campbell, of Augusta, Georgia—a theoretical paper, abounding in long words and hypothetical statement, but bringing forward no new facts.

The surgical papers comprise two upon oöphorectomy, by Drs. Battey and Engelmann respectively. They contain little that is novel, although much that is disputable. Dr. Battey treats of the field for his operation, and it would be well if all were as careful as he is. Cutting out the ovary for heart-disease does not seem to have occurred to him. Dr. Engelmann narrates two cases of anterior displacement of the ovary, associated with various nervous symptoms, for which, of course, that unfortunate organ was blamed. Dr. Byford narrates a most interesting case of extirpation of an encéphaloid kidney. The patient recovered, and two years afterwards no recurrence of the growth had taken place. We congratulate Dr. Byford upon his successful case. Those who want novelty will find it in a paper on "Uterine Massage," by Dr. A. Reeves Jackson, of Chicago. One of his methods, "Abdomino-Vaginal Massage," seems to us of a most objectionable character—indeed, we do not like to use the word which most aptly describes it. Three

cases are given, which are said to represent the *best* results derived from massage. The patients, it is stated, improved; but we see no reason for supposing that the same amelioration would not have come about without the daily vaginal manipulations which were practised. We hope this kind of treatment will remain on the other side of the Atlantic.

Dr. Stansbury Sutton narrates an interesting case of cataleptic convulsion cured by trachelorrhaphy. The cervix had been lacerated, and at the bottom of the laceration was a tender spot, pressure on which produced some kind of convulsion. The nature of the seizure is not exactly described. The rent was repaired, the exposed nerve-filament thus relieved from pressure or contact, and the patient restored to health. A most interesting, but quite exceptional, case. Dr. H. P. C. Wilson, of Baltimore, writes on ovariectomy during pregnancy. He gives an account of an operation of the kind performed by himself, and a summary of the cases recorded by others. Dr. Howard, of the same city, describes three cases of rupture of the uterus treated by laparotomy, all of which ended fatally. The novelty of the paper consists in the suggestion that in these cases the uterus should be removed. Dr. Howard has found one case recorded, in which this was done, by Prévôt, in Russia, but the patient died; and he advances strong reasons for thinking this a plan of treatment worth trying. His paper is stated to have been written for a former volume of *Transactions*; and probably this is the reason it contains no mention of the cases which have been so successfully treated on the Continent by drainage. Dr. Eve describes a case of occlusion of the gravid uterus; and gives references to some other recorded instances. The rarity of the condition in question makes the paper worth perusal. Dr. W. L. Richardson, of Boston, writes on manual dilatation of the os uteri. In the cases he records, it seems to us that the dilatation would have been better left to the natural bag of waters. The last paper in the volume is by Dr. C. D. Palmer, of Cincinnati, on "Laparotomy and Laparo-Hysterotomy: their Indications and Statistics for Fibroid Tumours of the Uterus," and is a very well written monograph.

The volume, it will be seen, contains plenty of matter for thought. The originality, ability, and labour displayed in it are worthy of admiration. The only thing that we have to wish is that our brethren would a little more bear in mind that no inference can be drawn as to the effect of treatment upon disease until we know what is the natural course of that disease when left untreated. If they would give as much attention to tracing out the natural history of disease as they do to devising means of removing conditions supposed (sometimes with reason, sometimes without) to be abnormal, gynecological science would make enormous strides. We beg leave again to thank our Transatlantic cousins for this most worthy volume.

The Supply of Water to our Homes: showing the Impracticability of the Regulations made in pursuance of the Water Act, 1871, and confirmed by the Board of Trade, August 19, 1872. By ROBERT FITZROY BENHAM, M.R.C.S. Eng. London: J. and A. Churchill, New Burlington-street. 1882.

THE pamphlet for which Mr. Benham is responsible does not deal with the sources of our water-supply, but it seeks to expose the hardships to which householders are subjected by the Act of Parliament which, it might fairly have been expected, would have stood between the public and the demands of the metropolitan water companies. The regulations made in pursuance of the Water Act of 1871 gave rise, Mr. Benham states, to what is called the "continuous water-supply system," and these, he asserts, although feasible in theory, abound in impracticable and absurd requirements. More especially he calls attention to Regulation 21, which says that "every water-closet cistern or closet service-box hereafter fitted or fixed, in which water supplied by the company is to be used, shall have an efficient waste-preventing apparatus so constructed as not to be capable of discharging more than two gallons of water at each flush." The evils arising from such an arbitrary regulation as this are succinctly detailed in the pamphlet, and Mr. Benham strongly advocates a return to the old system, since he maintains that under it closets were not so often "choked" as under the continuous system. He admits that the water companies are not to blame in seeking to impose some check upon consumption,

but he thinks that they should offer a premium to scientific men for the production of a satisfactory water-meter, which would to some extent modify the stringency of the regulations as they now stand. In common fairness, however, we can scarcely follow his argument that, failing the discovery of a perfect water-meter, the companies should be compelled to supply all consumers, "without any of the present absurd so-called checks." Neither can we quite agree with him when he says that "it would be to the advantage of the public if we could again resort to the arrangement which it [the continuous supply] has superseded." We conclude our notice by agreeing with him that all those whose houses are supplied on the "continuous system" would do well to filter the water drawn from the cisterns for drinking purposes; since, whereas, under the old system, most of the injurious particles became sediment, which could be removed from time to time by cleansing the cistern, there is now no such safeguard, owing to the continuous flow of the water.

GENERAL CORRESPONDENCE.

THE PARASITIC ORIGIN OF DISEASE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Among the earlier attempts at the building up of a parasitic theory of disease were those of Sir Henry Holland, Henle, and Eisenmann. Sir Henry Holland's essay was entitled "The Hypothesis of Insect Life as a Cause of Disease." Gottfried Eisenmann was a well-known physician of Würzburg, who died in 1867. He spent the most vigorous years of a long lifetime in prison (for political offences), and published during that period a number of volumes on diseases classified according to families, from the natural history point of view. One of his works, published in 1835, is entitled "Die vegetativen Krankheiten und die entgiftende Heilmethode." But the most singular development of this theory is an anonymous one contained in a book that is rarely to be met with. A copy in the library of the Medical Faculty at Montpellier bears the title:—"Système d'un Médecin anglais sur les Causes de toutes les espèces de Maladies, avec les surprenantes configurations de différentes espèces de petits insectes qu'on voit par le moyen d'un bon microscope dans le sang et dans les urines des différents malades, et même de tous ceux qui doivent les devenir; recueilli par M. A. C. D. —Paris, 1726." The volume contains ninety-one illustrations of the parasites referred to in the title. It would be interesting to know who the "Médecin anglais" was, and whether any copies of the book are preserved in English libraries. The "bon microscope" would be a good one for its day; but it was not till some ten years later that achromatic lenses were introduced by Dollond.

I am, &c.,

BACILLUS.

LETTER FROM MR. K. W. MILLICAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the article entitled "Two Views of Bacteria in Disease," which appeared in your journal of May 20, you appear to consider the "two views" therein referred to as necessarily antagonistic. Is there any valid reason why they should be so? May there not be in some cases both morphological and functional specificity, and in others the latter only? Nay more, may there not be in some cases neither the one nor the other in the disease-producing germs? In a paper which I read before the Medical Society of London a month or two back, I expressed a conviction that while such things as "specific" germs do undoubtedly exist, there are germs which are not originally disease-producing germs, but which become so in the process of "adjustment to their environment." That this is antecedently probable is evidenced by the functional alterations occurring in the *Bacillus fæni* and *Bacillus anthracis* under modifications of their conditions of existence. Moreover, with reference to the Guinea worm, Dr. Bastian appears to consider it as essentially a free nematoid, and only accidentally a parasite; and certain forms of ascarides are said, though originally parasitic, to develop young, which become free nematoids, and in that state are capable of sexual maturation. All these things

point to the fact that "specific functional characters" may become impressed upon "indifferent" germs, and that the "person apt to be poisoned" is a much more important element in the process of infection, relatively to the nature of the poison (I use the term conventionally), than has hitherto been conceded.

It appears to me that if the doctrine of the "origin of species" be only logically applied to disease-germs as to all other organisms, it at once clears up a host of difficulties. We can then understand how some germs, being "specific," should usually initiate a similar train of symptoms; how others, coming into unwonted circumstances, should produce different diseases in different people, or diseases that can scarcely be classified under any existing "specific" type, but appear to blend the phenomena of several; and finally, even how an actual change of type may occur, whereby one "specific" disease appears to have generated another.

I am, &c.,

KENNETH W. MILLICAN, B.A.

P.S.—In the Historical Sketch prefixed by Darwin to his "Origin of Species" (sixth edition, Murray, 1873), the following passage bearing on the point occurs:—"In 1853 a celebrated geologist, Count Keyserling (*Bulletin de la Soc. Geolog.*, second series, tom. x., page 357), suggested that as new diseases, supposed to have been caused by some miasma, have arisen and spread over the world, so at certain periods the germs of existing species may have been chemically affected by circumambient molecules of a particular nature, and thus have given rise to new forms."

REPORTS OF SOCIETIES.

THE OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 3.

Dr. MATTHEWS DUNCAN, President, in the Chair.

UTERINE FIBROIDS REMOVED BY LAPAROTOMY.

Dr. BANTOCK showed two specimens of uterine fibroids removed by abdominal section, one of them weighing six pounds. In both cases the pedicle was secured by Kœberlé's serre-nœud. Both patients were doing well. He had now had sixteen cases, with four deaths.

Dr. SAVAGE asked whether Dr. Bantock's method of securing the pedicle was more easily effected when the tumour reached high up within the abdomen.

Dr. BANTOCK said that the size of the tumour made very little difference. In reply to Dr. Routh, he said he had not used a drainage-tube in these cases because there was nothing to drain.

MYXOMA OF PERITONEUM.

Dr. JOHN WILLIAMS showed a dermoid cyst of the ovary, with myxomatous disease of the peritoneum. In reply to Dr. Routh and Dr. Heywood Smith, he said that there had been no symptoms indicating rupture of the cyst, and that the peritoneal disease had been diagnosed during life by the result of tapping.

Dr. MAITLAND COFFIN showed an Anencephalous Foetus.

ON THE CORPUS LUTEUM.

Dr. W. A. POW, of Pensa, read a paper on the above subject. He described two cases. The first was that of a prostitute, aged twenty-one, who died from prussic acid poisoning. In her ovary a fully ripe corpus luteum was found, although she was neither pregnant nor menstruating. The difference between the corpus luteum of pregnancy and that of menstruation was usually ascribed to the increased amount of nourishment received by the follicle in the pregnant state. In his case he thought that prostitution was probably the cause of the increased nutrition and development of the follicle. The second case was that of a woman aged forty-one, who died from gangrene of a uterine fibromyoma. The ovary contained a true corpus luteum, and in other respects resembled the ovary of a pregnant woman. In this case he thought the increased determination of blood to the part in consequence of the fibroid was the explanation of the size of the corpus luteum.

The PRESIDENT said that it was important to have the view confirmed, that a corpus luteum, having all the characters of that met with in pregnancy, occurred in women who were neither pregnant nor menstruating. He had seen such a corpus luteum in an aged woman who was believed to be salacious; and he had dissected cases of pregnancy with complete absence of corpus luteum.

ON THE NATURAL HISTORY OF DYSMENORRHOEA.

Dr. JOHN WILLIAMS read a paper on the above subject, of which the following is a summary:—1. Dysmenorrhœa should be studied first under the least complex conditions—in single women. 2. In single women it is rarely acquired; it is almost invariably primary, i.e., it appears with the menstrual function. 3. In a few, but rare, cases it ceases spontaneously a few years after puberty. 4. Marriage, if sterile, aggravates the disorder in many cases; it is only very seldom that it relieves the pain. 5. Child-bearing cures a large number of cases; and it is not improbable that, were all puerperal complications excluded, it would cure every case. 6. The proportion of sterile to fertile women, subjects of primary dysmenorrhœa, is one to twelve. 7. Menstruation begins, in women who become sufferers from primary dysmenorrhœa, at about the estimated average age for the appearance of that function in London. 8. Menstruation is regular in about two-thirds of the cases, and irregular in about one-third. 9. The menstrual fluid is profuse in about two-fifths of the cases, scanty in about one-half, and contains clots or shreds in about three-fourths. 10. The changes which take place in the fluid in the course of dysmenorrhœa are various, and cannot at present be classified. 11. The uterus is imperfectly developed. It may be too short, or too small in volume, or it may be defective in both respects. The cervix may be conical and the os small and round, but stricture of the canal in any part of its course is infinitely rare. 12. The changes in the uterus due to dysmenorrhœa are slight hypertrophy, erosion and eversion of the mucous membrane of the cervix, and catarrh. The cavity increases but little in length, for after years of suffering it measures rarely more than two and a half inches in length. In the early stages the tissues of the uterus are in some cases soft; in more advanced, hard. 13. The hypertrophy of the uterus is probably the result of periodically increased muscular action. 14. Ovaritis and perimetritis are possible consequences of dysmenorrhœa. 15. The menstrual pain is the result of spasm of the uterus, excited by the separation and expulsion of shreds of decidua and clots, in an organ whose sensitiveness in the performance of its function is enhanced by inappreciable conditions of tissue dependent on imperfect development, often associated with others, such as anæmia.

Dr. SAVAGE said that the broad ligaments were never unsymmetrical; the uterus was always the centre of it. Apparent elongation of one side was due to deficient uterine development on that side. Uterine casts never contained glands, but only circlets of cells surrounding the apertures of glands. Fragments of casts more or less minute always came away with menstrual fluid.

Dr. ROBERT BARNES agreed that imperfect development of the uterus was a factor in dysmenorrhœa, though he thought Dr. Williams's estimate of the proportion was too high. The frequency with which pregnancy followed the treatment of dysmenorrhœa showed that the uterus was fairly developed. He believed also that Dr. Williams had under-estimated the frequency of acquired dysmenorrhœa in single women. From retroversion or other causes dysmenorrhœa might be produced. The two most frequent causes of dysmenorrhœa and sterility, in his opinion, were a narrow os externum uteri and flexion. Where one or both of these conditions were present, dysmenorrhœa would commonly persist until they were remedied. He was pleased that Dr. Williams did not adopt the unphilosophical doctrine of spasmodic dysmenorrhœa as a primary or essential condition. Enlargement of the uterus was due not only to excessive muscular action, but to constant congestion of the organ from its impeded circulation. This produced a subacute endometritis, and the shedding of dysmenorrhœal membranes. By the enlargement of a narrow os externum, access was gained to the uterine cavity, so that the unhealthy mucous membrane could be directly treated.

Dr. WYNN WILLIAMS could not agree that displacements were not acquired in virgins. He had noticed that falls on

the back commonly produced retroflexion; on the face, antelexion. In his experience the most frequent and persistent cause of dysmenorrhœa was antelexion, which could only be cured by permanently straightening the uterine canal; and this he believed could be done. He agreed with Dr. Barnes as to the importance of a small os externum. He thought the author had not laid sufficient stress on metritis and fundal endometritis as causes of dysmenorrhœa.

Dr. GRAILY HEWITT had remarked the frequency with which general malnutrition, involving also the uterus, was observed with uterine symptoms. In these cases, during the early part of their course, the uterus was soft, incapable of maintaining its proper shape and position, and hence became flexed, prolapsed, or compressed upon itself. Probably some of the cases described by Dr. Williams as cases of imperfect development were of this latter kind. One of the symptoms that arose was dysmenorrhœa, due to difficulty in the escape of secretions, owing to the altered shape of the organ. All cases of uterine distortion were not accompanied with dysmenorrhœa; nor was dysmenorrhœa always due to uterine distortion. The circulation of the uterus was often much interfered with, and the congestion might cause pain. He hardly ever failed to relieve dysmenorrhœa by measures to keep the uterus in proper position, and its canal straight; and this seemed to him conclusive as to the connexion between the distortion or displacement and the dysmenorrhœa. He thought, in opposition to Dr. Williams, that dysmenorrhœa was often secondary.

The discussion was adjourned till the next meeting.



ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 9.

JOHN MARSHALL, F.R.S., President, in the Chair.

ON A CASE OF DOUBLE INGUINAL HERNIA, TREATED BY WOOD'S RADICAL CURE.

MR. W. T. TIVY read a paper on the above case, and offered some remarks in favour of the wire operation in reducible hernia not easily retained by a truss. T. W., aged nineteen, first came under the author's care in February, 1878, with double scrotal ruptures, each the size of an orange. He had large hernial apertures on both sides, freely admitting three fingers; both ruptures easily reducible, but a truss no use, as the hernia slipped down behind. On March 13, Wood's operation was performed on both sides, twisted silver wire being used instead of plain copper, in order to produce by the roughness a more copious exudation of lymph, and thus a more firm matting together of the parts. The patient, being perfectly anæsthetised, did not struggle, and did well after the operation, his temperature never reaching 100°. He had no peritoneal tenderness, slight double scrotal swelling, and moderate discharge from the wounds; he slept well all through, and had a daily evacuation. On March 29, sixteen days after the operation, the wires were easily removed, and good consolidation was found on both sides—so much so that on July 16 with difficulty could the position of the rings be made out. He has continued cured up to the present time, wearing a truss when engaged at hard work. The patient was exhibited to the Society. The author drew attention to some precautions necessary to insure the success of the operation, particularly dwelling on the necessity for selecting healthy patients under thirty years of age. In the operation itself he urged that the posterior wall of the canal must be carefully included in the parts operated upon, and the invaginating finger used with care to protect the peritoneum, epigastric vessels, iliac vessels, and bowel; the sutures must be placed directly opposite the openings to be occluded, and should not be drawn so tightly as to endanger sloughing. Mr. Wood has performed his operation 310 times, in 167 of which the result was verified, viz.: 119 cures after the lapse of from two to twenty-four years; in the remaining forty-eight the ruptures returned, but in no case to the same extent as prior to the operation. In 133 cases the patients were lost sight of; three deaths occurred in the first 100 cases from pyæmia, peritonitis, and erysipelas; in the latter 210 cases there was no death and no bad symptom of any kind. Dr. Buchanan, of Glasgow, has operated three

times successfully—in 1879; Mr. Thornby Stoker, of Dublin, twice successfully—once in 1874, and again nine months ago (the latter case is of no value statistically); Dr. Percival, of Northampton, two cases, both successful—in 1880; Mr. Spanton, of Stafford, three cases some years ago—one successful, one partially so, the third unsuccessful. The most important modifications of Wood's operation are Spanton's screw operation, and the antiseptic stitching up of the neck of the sac with catgut or fishing gut. Mr. Spanton has performed his operation twenty-five times between December, 1877, and December, 1879, with twenty-one successes. However, twenty of these cases having been done in 1879, sufficient time has hardly elapsed for a final judgment to be given; and it appears besides that some of the cases have not been seen since December, 1880. Spanton's operation possesses many requisites for success, and is easy of application; but its weak point seems to be in not drawing the boundaries of the canal into sufficiently close contact. The author proposes partially to remedy this defect by having the screw made much smaller at the handle than at the point, and thus gradually drawing the pillars of the ring into closer apposition by rotating the screw. He exhibited a modified screw, comparing it with Spanton's. The stitching operation, of which there are four modifications at least (the best being ligature of the neck of the sac, with excision of the sac, and stitching together the margins of the abdominal opening), is held in favour by Sir W. Mac Cormac, Dr. P. H. Watson, Mr. Annandale, Mr. H. G. Croly and Mr. A. H. Corley of Dublin, Mr. Rushton Parker of Liverpool, and many others; and Dr. Isidor Israelsohn has collected statistics of seventy-one cases, with fifty-eight cures and four deaths. The stitching operation is useful for cases of irreducible hernia, and for some cases of reducible or strangulated hernia in patients beyond the age of thirty, and for those in whom, owing to ill-health, it is not advisable to proceed to the major operation of Mr. Wood. It has many advantages, and being not difficult of performance, is certain to be popular; but owing to its neither affording as firm an invaginating material, nor as copious an exudation of lymph and subsequent contraction of the openings as Wood's operation, its effects cannot be so permanent, and no patient after the stitching operation ought ever to be without a truss. The author, in conclusion, recommends Wood's operation in all cases of reducible hernia not easily retained by a truss, where the patient's age is under thirty, and his health good.

The PRESIDENT said that there was no great danger in the operation itself, especially as done nowadays, with antiseptic precautions; but the question was how far it was permanently successful. Many cases had been lost sight of; some did remarkably well. But two things were often combined—the reduction of the hernia, and the operation for its cure. Besides, the originator of the operation now limited the age to thirty, and even then to only certain kinds of herniæ. And even afterwards some patients had to wear a truss. Still, this was safer for the patient. Some cases of scrotal hernia could not be controlled by a truss, and such an operation as that described would enhance the patient's safety. But it was not to be advocated in all cases, but rather where the truss would fail. His own best case was in a lady who went abroad; she reported herself regularly once a year for some time, but latterly he had not heard from her.

Mr. TIVY showed the screw he made use of, and briefly replied.

ECTROTIC TREATMENT OF VARIOLES IN SMALL-POX—CAUTERISATION BY CARBOLIC ACID; WITH MORBID ANATOMY AND PATHOLOGY OF THE VARIOLES.

A paper was read from Mr. MONTAGU D. MAKUNA (presented by Sir Joseph Fayrer) on the ectrotic treatment of variolæ in small-pox—cauterisation by carbolic acid; with morbid anatomy and pathology of the variolæ. The plan of cauterisation by carbolic acid was first suggested by Dr. Eade, of Norwich, in 1878, and the author of the paper is the only one who has given it a trial, and has to report its success. The cases were seen by Dr. Klein and other medical men. The following is a short syllabus of the paper:—1. General observations. 2. Pathology and morbid anatomy of the variolæ, papules, vesicles, pustules, following the rules of Dr. Tilbury Fox and Dr. Klein. This part of the paper was illustrated by twenty-

four microscopic sections of the eruptions, made by Dr. Klein. 3. General management and applications. 4. Ectrotics to prevent pitting with their therapeutics; cauterisation by carbolic acid on the first or second day of the vesicular stage, cutting open the vesicles and dabbing their surface with carbolic lotion at the height of the vesicular stage, and Velpeau's plan of using nitrate of silver in a few cases. The author condemned the practice of darkened rooms, basing his arguments on the reprobates of Mr. Blunt and Professor Tyndall on the influence of light on bacteria and other animalcules. 5. Remarks on the mercurial preparations, iodine, cold compresses, gutta-percha, collodion, plasters, and ointments, which are all more or less used by some and condemned by others. 6. General treatment during pustular stage. 7. Skin sequelæ, maculæ, tubercles; enlargement of the opening of the sebaceous ducts and their treatment.

The PRESIDENT remarked that this plan of dealing with small-pox pustules had already been recommended by Lémecier and Sansom.

Mr. HERBERT GOUDE said that the experiments carried out at the Highgate Hospital showed that the side of the face which was not interfered with did best as regards final results.

Dr. WHARRY suggested that iodoform might diminish the scarring effects of small-pox.

Dr. THIN said that the primary cause of certain diseases connected with this group was clearly blood-poisoning. In others again small pustules might appear, as in ringworm, but these were never in contact with the spores. In small-pox the cells of the rete mucosum are pushed aside and then killed, whilst the transuded blood-cells carry the poison with them.

Mr. TIVY had used benzoate and oxide of zinc ointment in an epidemic he had encountered. No marks were left.

Dr. MACFARLANE said that every case he had met had been treated with carbolic acid and olive oil, which he thought did much good and gave great relief.

Mr. SCRIVEN had been constantly accustomed to use carbolic acid, but had never opened the vesicles.

The PRESIDENT thought darkness good, especially where the eyes were affected.

NEW MATERIAL FOR THE DRAINAGE OF DEEP WOUNDS.—At a meeting of the Philadelphia Academy of Surgery (*Phil. Med. Times*, April 6), Dr. Levis "presented a new material for the drainage of deep wounds. He referred to the disadvantages of the india-rubber tubes as generally used for this purpose, and stated that they soon became occluded by viscid matters. Their pervious condition is soon lost, and their contents become septic and sources of danger. The material that he uses exclusively is simply threads of india-rubber such as are used in weaving elastic textures. Their softness and pliability render them mechanically unirritating. Any number may be introduced, varying with the extent of the suppurating cavity; and, if desired, they can be removed singly: thus gradually decreasing the drainage. The material is inexpensive, and may be obtained from any dealer in india-rubber goods."

RAPID INCREASE OF WEIGHT AFTER TYPHOID FEVER.—Assistant-Surgeon Langerfeldt communicates to the *Berl. Klin. Woch.*, April 17, the case of a drummer, aged twenty-one, who had become much reduced by an attack of typhoid which lasted from December 1 to January 26, at which latter date he was allowed to leave his bed for a short time daily. He was then found to weigh 122 German lbs., and by February 1 these had increased to 132½ lbs. But on February 2 he was seized with vomiting—a rapid pulse, high temperature, and distended abdomen being also present. With appropriate remedies these symptoms subsided, and on February 4 he was again able to leave his bed. His weight was now only 124 lbs., i.e., a diminution of 8½ lbs. in three days! During the next three days an improved diet was followed by an increase of weight of 8½ lbs., so that by February 7 he had again returned to 132½ lbs. This by the 9th had increased to 141 lbs. The daily increase now averaged ½ lb., so that by February 20, with all the appearance of health, he was discharged, weighing 144½ lbs. In a fortnight's time, during which he had performed all his military duties, he was found to weigh 146 lbs.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College passed their Primary Examinations in Anatomy and Physiology for the Fellowship of the College at the half-yearly meeting of the Board of Examiners on the 22nd inst., and when eligible will be admitted to the Pass Examination, viz.:—

Gross, Charles, of Guy's Hospital, diploma of Membership dated July 31, 1876.

Marsh, Frank, of King's College Hospital, April 24, 1877.

Elam, Wm. Henry, of the Leeds School of Medicine, November 13, 1877.

At the half-yearly Primary examination for the Fellowship there were seventy-six candidates. At the written portion of the examination on the 19th inst. they were required to answer at least three out of the four following questions on Physiology, from eleven to two o'clock, viz.:—1. Give approximately in kind and amount the ingesta and egesta of a healthy man for a period of twenty-four hours. Assuming the amount of the ingesta to remain constant, in what manner would the egesta be modified by hard work? 2. Describe and explain Scheiner's experiment. What points in physiological optics may be demonstrated by this experiment? 3. Describe the pulse-wave, and the methods of investigating it. Explain the mode of action of the chief influences which modify its characters. How may its velocity and length be determined? 4. What are the principal metabolic changes which give rise to the generation of heat, and in what parts of the body do they chiefly occur? And the following were the questions on Anatomy, to be answered between three and six o'clock, viz.:—1. Describe the various forms of the human skull. What methods have been adopted for the estimation of differences in form and size? 2. Describe the veins in the cavity of the thorax. Explain their arrangement by their developmental history. 3. Describe the manner in which the bones of the pelvis are ossified. Point out the distinctive peculiarities of the pelvis at birth, and the changes in shape which it undergoes prior to its complete development. Contrast the well-formed human pelvis with that of the quadrumana. 4. The skullcup and brain having been removed, give the dissection required to expose the nasal nerve and its branches throughout their course.

The following gentlemen passed the Primary Examination for the Membership on the 22nd inst., viz.:—

Beddoes, T. Pugh, B.A. Cantab., student of the Cambridge School.

Blomfield, James Edward, of University College Hospital.

Evers, Charles John, of the Birmingham School.

Travis, William Owen, of the Liverpool School.

Thirteen candidates were rejected. The following gentlemen passed on the 23rd inst., viz.:—

Child, Herbert, student of the Leeds School.

Crocker, John Hedley, of the Charing-cross Hospital.

Hind, Alfred Ernest, of St. Bartholomew's Hospital.

Hodgson, Gerald George, of King's College Hospital.

Larking, Arthur Ernest, of Guy's Hospital.

Plowman, Sidney, of St. Thomas's Hospital.

Scott, Arthur William, of the Birmingham School.

Short, Thomas Sydney, of King's College Hospital.

Woolbert, Henry Robert, of University College Hospital.

Eleven candidates were rejected. The following gentlemen passed on the 24th inst., viz.:—

Allingham, Herbert William, student of St. George's Hospital.

Drew, Arthur John, of University College Hospital.

Hurst, Walter, of the Manchester School.

Lee, Henry Boynton, of the Leeds School.

Merrifield, Sydney Sargent, of King's College Hospital.

Muspratt, Charles Drummond, of Guy's Hospital.

Johnston, Wm., M.D. Queen's Univ. Ire., of the Belfast School.

Saneyoshi, Yasuzumi, of St. Thomas's Hospital.

Steedman, John Francis, of St. Bartholomew's Hospital.

Eleven candidates were rejected.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 18th inst., viz.:—

Brooks, Walter T., L.S.A., Stoke Newington.

Davies, John C., L.S.A., Malmesbury-road, E.

Day, John R., L.S.A., Camden-road, N.W.

Faddy, Edward R. P., Lower Norwood.

Gray, John A., Essex-road, N.

Hodgson, Joseph W., M.B. Aberd., Leighton, Beds.

Moore, Yook T. G., Hackney.

Morris, Wm. D. J., L.R.C.P. Edin., Fishguard, Pembrokeshire.

Pincott, James C., Brixton-hill.

Robinson, Alfred, L.S.A., West Cross, Swansea.

Scroggie, William R., Bombay.

Eight candidates were rejected. With this meeting the examinations for the Membership of the College were brought to a close for the present session, and out of the ninety-six candidates examined, no less than forty-three having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months. At the corresponding period last year there were ninety-three candidates, of whom forty-three were rejected. The clinical cases on which the candidates were examined had been selected from the metropolitan hospitals, and consisted of—Osteitis of the clavicle; chronic abscess in the back; an interesting case of hypospadias; cured hydrocele; epididymitis; abscess over the sternum; monorchis; enlarged inguinal gland and right inguinal hernia; rodent ulcer of the face; popliteal aneurism; epithelioma of the lower jaw; scrotal hernia; syphilitic orchitis; enlarged glands in the axilla; venereal warts on the prepuce; dislocation of elbow backwards; contraction of the palmar fascia, etc.

APOTHECARIES' HALL, LONDON.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, May 18:—

Kauffmann, Eugene John, Detroit, Michigan, U.S.A.

BIRTHS.

- ARCHER.**—On May 18, at North Lodge, Royston, the wife of H. R. Archer, M.D., of a daughter.
- BENTON.**—On May 22, at 2, Bennett-street, St. James's, the wife of Samuel Benton, M.R.C.S., of a son.
- CANE.**—On May 23, at the Minster Precincts, Peterborough, the wife of Leonard Cane, M.D., B.S., of a son.
- EADY.**—On May 21, at Roslin, Caterham Valley, the wife of G. J. Eady, M.R.C.P., of twin sons, one stillborn.
- HARRISON.**—On May 18, at Failand Lodge, Guthrie-road, Clifton, the wife of A. James Harrison, M.B., J.P., of a daughter.
- PHIBBS.**—On May 16, at 30, Sutherland-gardens, W., the wife of Robert Featherstone Phibbs, M.R.C.P., of a daughter.
- WHITTLE.**—On May 20, at 65, Dyke-road, Brighton, the wife of Ed. George Whittle, M.B., F.R.C.S., of a son.
- WILKINSON.**—On May 15, at 7, Elwick-road, Ashford, Kent, the wife of J. Cooper Wilkinson, M.R.C.S., of a daughter.

MARRIAGES.

- BARROW-FOX.**—On May 11, at The Grove, Hammersmith, Herbert Athelstan, son of Samuel Barrow, Esq., of Wandsworth, to Mary Theodora, daughter of Charles James Fox, M.R.C.S.
- GWATKIN-FRASER.**—On April 20, at Rawul Pindee, Frederick Stapleton Gwatkin, Lieut. and Adjutant 13th Bengal Lancers, to Christina Helen Grahame, daughter of Deputy Surgeon-General A. H. Fraser, A.M.D.
- PELLEY-STEELE.**—On May 16, at Reigate, William Henry Pelly, Esq., to Eleanor Lucy, daughter of John Sisson Steele, M.R.C.S., of Reigate.
- SKAIFE-BRADY.**—On May 18, at East Dulwich, Harry Skaife, M.R.C.S., to Harriett Bell, daughter of the late James Brady, Esq., of Brixton.

DEATHS.

- ALLEN, ROBERT FRANCIS, M.D.,** late of Towcester, Northamptonshire, at Cockermonth, on May 10, aged 39.
- CHAPMAN, W. S.,** Surgeon-Major A.M.D., at Ledbury-road, Bayswater, on May 16, aged 44.
- DIXSON.**—The wife of John East Dixson, M.R.C.S., at Wye, Kent, on May 19, in her 83rd year.
- FENN, EDWARD CHURCHILL,** son of Edward L. Fenn, M.D., at 1, Portland-terrace, Richmond, Surrey, on May 20, aged one year.
- GREWCOCK, GEORGE, M.D.,** at Folkingham, Lincolnshire, on May 16, aged 79.
- ROWLAND, HUGH MORTIMER, M.D.,** at Gloucester House, Malvern Wells, Worcestershire, on May 16, in his 48th year.
- THOMAS, HENRY, F.R.C.S.,** at Leavy Greave, Sheffield, on May 16, aged 73.
- WILLAN, L. R., M.D.,** at Penzance, Cornwall, on May 22, aged 78.
- WILLIAMS, OWEN GETHING, M.R.C.S.,** at Pant y Syf, Sketty, Swansea, on May 16, aged 78.

VACANCIES.

- ANNENBROOKE'S HOSPITAL, CAMBRIDGE.**—Resident House-Physician. Candidates must be duly registered. Applications, with qualifications and testimonials, to be sent to the Secretary (under cover) on or before June 6. The election takes place on June 28.
- CHELSEA HOSPITAL FOR WOMEN.**—Two Physicians and Assistant-Physician. (For particulars see Advertisement.)
- CRUYON GENERAL HOSPITAL.**—House-Surgeon. (For particulars see Advertisement.)
- GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY, CARDIFF.**—House-Surgeon. Candidates must be registered in medicine and surgery under the Medical Act. Further particulars may be obtained on application to the Secretary, George T. Colman, to whom testimonials, under cover, sealed, and addressed to the Committee, are to be sent on or before June 12.
- LEITH HOSPITAL.**—Assistant-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to be sent to the Secretary, George V. Mann, 33, Bernard-street, Leith (from whom all information can be obtained), by June 8.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Candidates must possess a medical and surgical qualification from one or more British colleges or institutions recognised under the Medical Act. Applications and testimonials to be addressed to the Chairman of the Committee, not later than June 3. The election takes place on June 9.

NATIONAL HOSPITAL FOR THE DEFORMED, 234, GREAT PORTLAND-STREET, REGENT'S-PARK, W.—Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England, not practising midwifery or pharmacy. Applications and testimonials to be sent to the Secretary, Herbert Canning, on or before May 29.

ROYAL HANTS COUNTY HOSPITAL, WINCHESTER.—House-Surgeon. Candidates must possess a diploma from the Royal College of Surgeons of England, or the surgical diploma of a Royal College or a University in England, Scotland, or Ireland, and also a degree in medicine from one of the said Universities, or a licence from the Royal College of Physicians in London, or from the Society of Apothecaries. Applications, with testimonials as to moral character, etc., to be addressed to the Secretary, on or before June 10.

ROYAL PINLICO DISPENSARY.—Resident Medical Officer. Applications, with testimonials, to be sent to the Hon. Sec., at the Dispensary, 104, Buckingham Palace-road, S.W., on or before June 5.

SCARBOROUGH UNION.—District Medical Officer and Public Vaccinator. (For particulars see Advertisement.)

TUNBRIDGE WELLS BENEFIT SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Candidates must be members of one of the Royal Colleges of Surgeons of the United Kingdom and registered under the Medical Act. Applications, with diplomas and original testimonials of recent date, to be sent to the Secretary, Mr. J. Wallis, 26, Newcomen-road, Tunbridge Wells (from whom all particulars can be obtained), not later than May 29.

UNION AND PAROCHIAL MEDICAL SERVICE.

* * * The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATION.

Southwell Union.—Mr. H. P. Long has resigned the Farnsfield District: area 15,872; population 2483; salary £25 per annum.

APPOINTMENTS.

Crediton Union.—Alexander M. Bredon, B.M., M.C. Dub., to the Cheriton Fitzpaine District.

Manchester Township.—William E. Bailey, L.R.C.P. Edin., L.F.P. & S. Glasg., M.C. Glasg., L.S.A., as Resident Assistant Medical Officer at the Workhouse.—Clement Bernard Voisey, M.R.C.S. Eng., L.S.A. Lond., Resident Assistant Medical Officer to the Workhouse.

LOCAL TEMPERATURE OF THE JOINTS.—M. Nicaise, reporting to the Société de Chirurgie on a work by M. Redard (*Union Méd.*, May 16) "On the Local Temperature of the Joints in the Normal and Pathological Conditions," observes that there is a great difficulty in constructing instruments sufficiently perfect for this kind of investigation. Fortunately, in practice, this extreme precision is not generally necessary, and an examination by the hand (which may be specially educated to this end) usually suffices for the discovery of an inflammatory or irritative process, and especially if the symmetrical region is also explored. M. Redard shows that in the normal state the temperature of the skin over the joints may vary from 4° to 6° Cent., according to the external temperature, and accordingly as the region is protected or exposed to the air. It diminishes as we recede from the trunk, and it is higher in the direction of flexion and near the great vessels; movements also affect the temperature of the joint and of the corresponding limb. In the pathological condition the examination is only useful when the joints are superficial, the hip-joint and shoulder being too deeply situated; but M. Nicaise observes that in acute arthritis of the shoulder the temperature of the entire region becomes raised. M. Redard states that when the temperature of joints continues high although the limb seems to have returned to its normal condition, this indicates that the inflammation still persists. In traumatic arthritis the temperature may rise 2° or 3°, but the local temperature never rises above the general. In hydrarthrosis, and in effusion following fracture, there is always an increase of temperature, showing that there is not a mere infiltration into the joint. The existence of foreign bodies is often accompanied by an elevation, which is only slight in dry arthritis. But in white swelling it is more considerable, and not alike around the whole joint, being higher at points where the inflammatory action is most active. In old ankyloses there is often an elevation of 1°, and this furnishes a very important rule in therapeutics, the utility of which M. Nicaise has often witnessed—viz., that we should wait before imparting movement to an ankylosed joint until the local temperature has descended to its normal figure. In the same way, in old sprains, unsuspected persisting inflammation may be detected by the temperature remaining high.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 20, 1882.

BIRTHS.

Births of Boys, 1233; Girls, 1229; Total, 2462.
Corrected weekly average in the 10 years 1872-81, 2493·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	710	710	1420
Weekly average of the ten years 1872-81, ...	783·5	719·7	1503·2
Deaths of people aged 80 and upwards ...	...	...	48

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	8	3	3	17	...	1	...	2
North ...	905947	2	4	7	3	27	...	8	...	6
Central ...	282238	...	3	1	1	11	...	1	2	...
East ...	692738	...	1	8	...	25	...	1	...	...
South ...	1265927	7	20	12	5	28	...	4	1	4
Total ...	3816483	9	36	31	12	108	...	15	3	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	...	30·075 in.
Mean temperature ...	...	...	...	...	...	...	50·7°
Highest point of thermometer ...	...	...	...	...	...	...	67·1°
Lowest point of thermometer ...	...	...	...	...	...	...	34·5°
Mean dew-point temperature ...	...	...	...	...	...	...	41·1°
General direction of wind ...	...	...	...	...	...	...	N.E.
Whole amount of rain in the week ...	...	...	...	...	...	...	0·01 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 20, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending May 20.	Deaths Registered during the week ending May 20.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3893272	2462	1420	19·0	67·1	34·5	50·7	10·39	0·01	0·03
Brighton ...	109595	68	39	18·6	62·0	39·6	48·2	9·00	0·04	0·10
Portsmouth ...	129916	85	64	25·7	...	...	...	...	...	...
Norwich ...	83821	69	34	20·0	...	...	...	...	...	...
Plymouth ...	74449	58	24	16·8	63·5	38·5	49·2	9·55	0·00	0·00
Bristol ...	210134	119	74	18·4	63·5	34·4	47·4	8·55	0·00	0·00
Wolverhampton ...	76756	67	28	19·0	69·4	34·0	48·8	8·34	0·00	0·00
Birmingham ...	408532	321	140	17·9	...	...	...	...	...	...
Leicester ...	126275	86	43	17·8	65·0	34·8	48·0	8·89	0·00	0·00
Nottingham ...	193573	151	83	22·4	71·8	34·9	50·6	10·34	0·0	0·00
Derby ...	83587	49	31	19·4	...	...	...	...	...	...
Birkenhead ...	86592	56	33	19·9	...	...	...	...	...	...
Liverpool ...	560377	418	299	27·8	68·4	38·0	49·8	9·89	0·00	0·00
Bolton ...	106767	66	39	19·1	67·2	35·1	47·7	8·72	0·00	0·00
Manchester ...	340211	262	179	27·5	...	...	...	...	...	...
Salford ...	184004	150	72	20·4	...	...	...	...	...	...
Oldham ...	115572	94	54	24·4	...	...	...	...	...	...
Blackburn ...	106460	78	6	31·9	...	...	...	...	...	...
Preston ...	97656	92	49	23·2	...	...	...	...	...	...
Huddersfield ...	83418	29	4	28·8	...	...	...	...	...	...
Halifax ...	74713	46	29	20·3	...	...	...	...	...	...
Bradford ...	200158	136	87	22·7	66·7	36·0	49·4	9·66	0·00	0·00
Leeds ...	315998	204	119	19·6	70·0	35·0	49·6	9·78	0·00	0·00
Sheffield ...	290516	207	116	20·8	66·0	33·5	46·8	8·23	0·00	0·00
Hull ...	158814	134	76	25·0	62·0	34·0	45·3	7·39	0·00	0·00
Sunderland ...	119065	90	54	23·7	6·90	37·0	50·3	10·17	0·03	0·08
Newcastle ...	147626	103	77	27·2	...	...	...	...	...	...
Cardiff ...	83724	51	25	15·6	...	...	...	...	...	...
For 28 towns ...	8469571	5751	3400	20·9	71·8	33·5	48·7	9·28	0·01	0·03
Edinburgh ...	232440	154	87	19·5	60·4	37·7	49·0	9·44	0·00	0·00
Glasgow ...	514048	441	263	26·7	73·0	33·5	51·1	10·62	0·00	0·00
Dublin ...	348293	222	167	25·0	63·9	31·3	48·6	9·23	0·00	0·00

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·08 in. The highest reading was 30·31 in. on Wednesday morning, and the lowest 29·69 in. by the end of the week.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

J. C.—Yes, to both questions.

Mr. Williams.—The following were the gentlemen who examined you at the "Primary" for the Fellowship of the College of Surgeons, viz.:—Messrs. T. P. Pick, of St. George's Hospital; W. Rivington and J. McCarthy, of the London Hospital; W. M. Baker and John Langton, of St. Bartholomew's Hospital; B. T. Lowne, of the Middlesex Hospital; Edward Bellamy, of the Charing-cross Hospital; and Gerald F. Yeo, of King's College Hospital. Mr. Henry Power, of St. Bartholomew's Hospital, is the chairman.

A Parent, Manchester.—The preliminary examinations at the College of Surgeons are discontinued. Inquire of the Clerks at the General Medical Council Office, 299, Oxford-street, W.

Making the Best of it.—Dr. Thorne, of the Local Government Board, has held an inquiry into the complaints which had been made to the effect that the small-pox epidemic in the town of Rochdale was to a large extent due to the bad arrangements existing at the hospital at Spotland. After hearing evidence, he states that the Corporation had to act in a great emergency, and in the circumstances the management was not what it should have been, but everything had been done from the best motives. He will draw up a report on the matter.

Emigration to the United States.—The departures from the Mersey alone are enormous. Last month they numbered 38,534, or considerably more than one thousand a day. The rapidly increasing exodus of English people is a significant fact in these returns. Last month they numbered nearly one-half of the total departures. The number of English embarking at Liverpool in April for America was 16,674, of Irish 3933.

Culpable Carelessness.—Mr. Churton, the coroner, held inquests at Birkenhead during last week on the bodies of no fewer than four children who had been "overlain" by their mothers. An open verdict was returned in each case, the coroner severely reprimanding the mothers for their great carelessness.

Tobacco Consumption, France.—The official returns of the sale of tobacco in France continue to show a considerable increase. During the first quarter of the present year the sales amounted to 86,534,000 fr., against 83,644,000 fr. in the corresponding period last year.

P. P., Marylebone.—Every effort, it is stated, will be made to hold the Hygienic Exhibition at Berlin this year, notwithstanding the recent unfortunate fire; but although a building might be prepared in time, there would appear to be little chance of replacing this year the exhibits, which have been nearly all destroyed.

Lodging-houses, University of Oxford.—Touching the sanitary condition of the lodging-houses licensed by the University, it is now officially stated that of the 520 licensed houses, containing accommodation for 1100 undergraduates, there remain only thirteen which have not yet been reported by the sanitary officers to be in a satisfactory condition. A thorough inspection has been carried out; and it is formally announced that henceforth no new house will be licensed unless the sanitary arrangements are in accordance with plans prepared by the delegates.

Oldbury.—The Medical Officer of Health reports to the Local Board that the death-rate for the past month was 18·9 per 1000 per annum, compared with 27·7 for the previous month, and 21·4 for the corresponding month of last year. Dr. Cunningham has requested the Board to have arrangements made with the medical gentlemen of the district to report any cases of small-pox on their appearance.

Intimidation, Ireland.—A genuine Paddy of a doctor, who is living in a most disaffected part of Ireland—a Roman Catholic, and a good fellow—writes to a contemporary that he has been threatened with "death, boycotting, and other desperate measures" (a trifle Irish this!) if he does not refrain from attending the military and police. We are glad, however, to learn that he replies that he doesn't care a rap for them all, and states that the Land Leaguers ought not to be ungrateful to him, as he binds up their broken heads for them—provided they pay him beforehand. We hope he is essential to the Leaguers, as then his life may be safe.

Inquirer.—The annual expenditure of the Royal Hospital for Incurables is about £26,000. The income last year fell short of that amount by a considerable sum.

Hygienist.—1. The Corporation of Hertford has made arrangements with the Rivers Purification Association, London, to continue the purification of the sewage of the town for a further period of five years at an increased subsidy. 2. The Corporation of Wolverhampton, after paying a liberal salary and charging interest on capital—a charge frequently omitted in the financial statement—has realised 34s. per acre by the Barnhurst farm. The main object of this farm is to consume the sewage of the town.

Why no Post-Mortem Examination?—At an inquest held at High Felling, near Newcastle-upon-Tyne, on the body of a girl ten years old, in the absence of any natural disease, Dr. Hopper came to the conclusion that death had been caused by poison, and he thought it likely the child had eaten some wild poisonous herb, such as "fool's parsley." Verdict in accordance with the medical evidence.

A Coroner's Jury.—A contemporary reports that at the Middlesex Hospital, last week, an "amusing" incident occurred. Twenty-five gentlemen had been summoned to attend as jurors, but only ten were in attendance. After waiting a quarter of an hour for the defaulters, the Coroner directed his officer to go into the public street and impress the first three men of sound mind and over age he came across. The officer, accompanied by a police-sergeant, accordingly constituted themselves a "press-gang," and went out on their errand; but before they could carry out their order, the Coroner noticed that several medical students were present, and countermanded his order to the "press-gang," and, to the amusement of the orthodox jurors and a dozen of students, pressed into his service three adult students. The inquest was then proceeded with in the usual manner.

Vaccination Districts.—The vexed question of dividing the town of Wolverhampton into three vaccination districts, each to contain 25,000 inhabitants, has at length been referred by the Board of Guardians to Mr. Parsons, the Local Government Board Vaccination Inspector.

Query, Disappointed?—"How many deaths?" asked a hospital physician while going his rounds. "Nine." "Why, I ordered medicine for ten!" "Yes, but one wouldn't take it."

Sophistication in Germany.—In Germany the adulteration of food or drink involves, on conviction of the delinquent, extremely heavy penalties. As an instance, a wine merchant, for manufacturing a liquor sold by him as pure wine, but adulterated with various compounds and ingredients, was convicted, and amerced in a heavy penalty, sentenced to be imprisoned with hard labour for three and a half years, and ninety thousand bottles of the beverage that still remained unsold in his cellars were forfeited!

A Desideratum.—The proposal for a magnificent winter and summer garden at Brighton, it is stated, has been so generally approved that the necessary capital will be forthcoming and the scheme carried out.

Sanitary Improvements, Wells.—Respecting an application to the Local Government Board from the Corporation of Wells to borrow £500 for sewerage works and £500 for the erection of an infectious hospital, the Corporation proposed to deal with the sewage matter by burning with chemicals, but the Government Inspector has informed the local authorities that it would not be permitted, and has suggested that a plan of irrigation should be adopted instead—a suggestion which the Corporation are now considering.

Cambrian.—Two years ago the Alexandra Children's Convalescent Hospital at Rhyl was begun in a cottage, in which were twelve beds. Since that time it has been increased, first to forty beds, then to eighty, and then to ninety; but the pressure for further accommodation continues, and the fund now being raised is to enable the committee to purchase two new houses that have been built opposite the Hospital, in one of which sixty beds can be put. Besides providing accommodation for children free, the Hospital receives patients whose parents are able to pay for them.

Vaccination Fees.—The Vaccination Committee of the Holborn Board of Guardians have reported that they had considered the advisability of paying the vaccination officers by a system of fees for each case, instead of salary, and recommend that no change be made in the present system which the Board has adopted.

W. Lumley C.—It has been stated in a daily contemporary that in Philadelphia, under a system of cheap ground rents and co-operative building societies, and with higher rates of wages than prevail in England, the working-man is much better housed than our mechanics and labourers, and frequently owns his own dwelling. However small his house may be, it will have a bath-tub and a good cellar for storing fuel and provisions. Still the advantages for mental and moral improvement are not much better than in the English factory town. The house is a little larger, and the street a little wider, and possibly a little cleaner—but that is all.

Bad to Beat.—A Chicago funeral notice says, "The burial casket was made to conform as far as possible with the comforts the occupant was wont to surround himself with when in the home he left!"

COMMUNICATIONS have been received from—

THE SECRETARY OF THE ODONTOLOGICAL SOCIETY, London; Mr. JOHN SHAW, London; THE SECRETARY OF THE HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London; Mr. BLACKETT, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN; Mr. WINSLOW HALL, Elgin; Mr. CHARLES MOULIN, London; Dr. MILLICAN, Kineton, Warwickshire; Dr. ROBERT HARVEY, Calcutta; Messrs. NEWBURY and SONS, London; Messrs. CUXSON and Co., Wednesbury; THE SANITARY COMMISSIONER, Punjab, India; THE SECRETARY OF THE ROYAL

INSTITUTION, London; Messrs. BUAGOYNE, BUABDOES, and Co., London; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; THE REGISTRAR OF THE ROYAL COLLEGE OF PHYSICIANS, London; Dr. ROBERT P. HARRIS, Philadelphia.

BOOKS, ETC., RECEIVED—

Sarcoma and Carcinoma, by Henry Trentham Butlin, F.R.C.S.—Report of the Metropolitan Board of Works—On the Treatment of Cancer, by John Clay—Report on the Health of the Borough of Birmingham for the Quarter ending April 1, 1882—The Evidences of Insanity Discoverable in the Brains of Criminals, etc., by Edward C. Spitzka, M.D.—Annual Report of the Royal Edinburgh Asylum for the Insane for 1881—Madeira; its Scenery and How to See it, by Ellen M. Taylor—Report of the Delegacy for Licensing Lodging-Houses on the Sanitary Inspection of Lodging-Houses, 1881-82—Report on the Sanitary Condition of the Lodging-Houses, by E. F. G. Griffith, C.E.—The Botanical Atlas, by D. M'Alpine, F.C.S.—Report of the Bradford Eye and Ear Hospital, Hallfield-road, for 1881—The Opium Habit, by E. H. M. Sell, A.M., M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Le Concours Médical—Ciencias Medicas—La Oftalmologia Practica—Revue d'Hygiène—Blackpool and Fleetwood Gazette, May 19—Dublin Journal of Medical Science—Australian Medical Journal—Revista de Medicina—Canadian Journal of Medical Science—Friendly Greetings—Sunday at Home—Leisure Hour—Girl's Own Paper—Boy's Own Paper—The Illustrated Quarterly of Medicine and Surgery, Nos. 1 and 2.

APPOINTMENTS FOR THE WEEK.

May 27. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Professor D. Masson, "On Poetry and its Literary Forms."

29. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

30. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
ROYAL INSTITUTION, 3 p.m. Professor A. Gamgee, "On Digestion."

31. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BAOMPTON, 4 p.m. Lectures and Demonstrations: Dr. Mitchell Bruce.

June 1. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.
ROYAL INSTITUTION, 3 p.m. Professor Dewar, "On the Metals."

2. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Mr. Gerald Francis Yeo, "On the Relation of Experimental Physiology to Practical Medicine." Lecture I.

ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Mr. H. H. Statham, "On the Intellectual Basis of Music."

ORIGINAL LECTURES.

THE CROONIAN LECTURES

ON

THE CLIMATE AND FEVERS OF INDIA.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., etc.

THE CONTINUED FEVERS OF INDIA.

LECTURE III.—PART III.

ENTERIC FEVER—continued.

IN expressing thus unreservedly an opinion that enteric fever may be of malarious origin, those who disbelieve in the existence of such an element as malaria will marshal arguments which may appear directly opposed to what is here stated. The irresistible mass of facts collected by Murchison, Budd, and others, prove that enteric fever in Europe is truly pythogenic, and that in most instances it is caused by decomposing fæculent matter. In India we cannot accept that as the sole, or perhaps chief, exciting cause of enteric fever. In asserting its malarious origin no new or startling theory is advanced. Similar opinions have been ably maintained by many European writers, and by none more frankly than by Dr. John Harley.

He recognises three varieties of enteric fever: the simple inflammatory, the contagious, and the paludal. The last he believes to be the most common. It is non-contagious, its course is usually slow, and it arises from putrescent animal and vegetable substances.

In the last edition (1873) of Dr. Murchison's great work there is nothing antagonistic to the conclusion arrived at by Dr. Harley; rather, there is much to confirm it. Referring to the antagonism supposed to exist between enteric fever and the common paroxysmal fevers, Dr. Murchison, on the authority of M. Boudin, quotes several remarkable instances in which French regiments on their return from Algiers remained exempt from enteric fever, which was prevalent among other soldiers residing in the same barracks. But, as Dr. Murchison shrewdly remarks, this and other similar facts mentioned suggest a similarity instead of an antagonism. By instances drawn from malarious countries, such as Lorraine and Bohemia, he verifies this conjecture, and shows by two striking examples the identity of the exciting causes in both diseases.

Dr. Parkes also entertained doubts that the generally accepted cause is the only one to which enteric fever is to be referred.

No one, however, has more persistently and ably affirmed that enteric fever is generated in India by other causes than fæcal emanations than Dr. Bryden. In 1872 he wrote:—"Eight years since, from the facts then at my disposal, I made the generalisation that the typhoid of the British soldier in India is primarily due to climatic influences. The belief that defective conservancy will be found in every case when typhoid fever shows itself is very apt to lead to the conclusion that any statement to the contrary must be erroneous. This is a narrow view, and it is not warranted by any feature in the aspect of typhoid as we meet with it among our soldiers."(a)

There are several points which conclusively indicate the presence of some exciting cause distinct from and independent of any fæcal emanations.

The Dacca gaol and lunatic asylum, in which observation, were chiefly made, stand side by side on the most elevated, and consequently driest, piece of ground within the city. The land falls away to the north and south. No water lodges, and no sewers exist in either institution. The dry-earth system of sewage is followed, and the whole of the night soil is buried in the gardens, and vegetables planted as soon as the pits are filled in. In both places the gardens lie on the north-west of the dormitories, and the wind during the hot and sickly months blows steadily from the south-west.

The drinking-water supplied to the prisoners is derived

from a well to the south-east of the wards. It was analysed in 1871, and pronounced to be purer than the generality of wells in Dacca.

The lunatics, again, obtain their drinking-water from the river, whence it is brought in carts, and then filtered through charcoal and sand before being issued.

The facts that no outbreak of enteric fever has as yet occurred in either institution, and that only isolated cases are met with at intervals of weeks or months, seem to refute the idea that the seizures were due to any local defects within the walls.

If enteric fever be in India, as it undoubtedly is in Europe, due to fæcal emanations, how can we explain the circumstance that in the midst of the city, containing, as it did in 1872, 69,000 inhabitants, densely populated quarters are to be seen in which the fæcal deposits of generations are collected in unsightly heaps, or thrown into privy wells within a few feet of the well from which drinking-water is obtained, which causes diarrhœa when first used, but never any form of fever? Toleration, however, is soon established, and comparative health enjoyed. With the exception of one case in 1874, not a single person was admitted into the Mitford or Public Hospital with enteric fever between November, 1866, and November, 1874.

Climatic fevers of a continued or continuo-remittent type appear to have been observed by several medical officers besides those I have mentioned.

Dr. Hoystead, writing from Hyderabad, Scinde, speaks of "the close affinity which exists out here between pernicious remittent fever and typhoid"; and Staff-Surgeon Maclean, R.N., writing from the Royal Naval Hospital, Ascension, March, 1881, alludes to the occurrence of enteric fever in a locality, and under circumstances of close observation, where no connexion could be traced with defective sanitary arrangements, though it is probable that malarial influences do occur.

Dr. Don, of the Army Medical Department, has expressed his views on the subject of the climatic origin of fever with enteric complications. He says—"Doubts are now pretty freely expressed on the causation of the disease, especially by medical officers, whose experience of it extends to all parts of the world."

Surgeon-Major Martin, of the A.M.D., says—"It would appear that the phase of enteric fever with which we are familiar in tropical regions teaches that the disease is to be considered as being in its nature more analogous, and in its history more closely allied to disease of climatic origin (using the term in a wide sense), than to disease of a specific nature."

Dr. Bouchard (*Revue Mensuelle de Médecine et de Chirurgie*, November, 1877) says that typhoid is a specific miasmatic fever—that the *materies morbi*, not necessarily arising from a previously infected organism, may impregnate the air, soil, or water, and may be disseminated by man, by air, water, and other objects; but he considers that the doctrine of infection and contagion is too exclusive, that the doctrine of fæcal origin is too limited, and that of spontaneity is not proved.

I am indebted to Dr. Kynsey, P.M.O. of Ceylon, for the following interesting memorandum on the fevers of that island, which seem to be of a milder type than those of India. It singularly illustrates the confusion which still obtains about the nosology of tropical fevers. He thinks enteric fever is confined to the large towns, occurs only in sporadic cases, and is never epidemic. The cause is, as far as my judgment goes, a specific poison; but I am convinced there is a form of fever in the tropics indistinguishable during life from this fever, and without the characteristic lesions of Peyer's glands after death.

In the ten years under review 2539 cases of continued fevers were registered, and 5779 deaths are alleged as due to it in 1880, showing again the untrustworthy nature of the Registrar's returns as to the varieties of fever, although there can be no doubt that the past year showed a high death-rate from fevers. It is difficult to arrive at what is meant by the term. It should only, of course, include those cases of fever in which the normal diurnal variations of temperature occur without remissions. It is, however, probable that in Ceylon returns simple continued fever includes all cases of disease attended by fever without any prominent symptom pointing to disease of special organs, and without distinct intermissions.

(a) Appendix to the Ninth Report of the Sanitary Commissioner with the Government of India, 1872.

There are 617 cases attributed to febricula, with only one death. The cause is probably exposure to the sun, and chills when the body is overheated.

Ague gives 91,413 cases in the ten years, and remittent fever 3409, both due to malarial causes. The prevalence of malarial fevers is certainly decreasing. The climate of many parts of the island formerly the most malarious is greatly altered; and places where one could hardly live without the risk of catching deadly jungle-fever are now remarkably healthy. Trincomalee shared with some places in India the ill repute of being the grave of the European, but now there is little ground for this saying. Stations once the most malarious are now remarkably healthy. I may allude here to the disappearance of a disease which at one time was known as the Ceylon disease "beri-beri." It is now unknown to the present practitioners, and I have never seen a case of the disease in the island. The cause was attributed to the slow action of malaria. The remittent fever of Ceylon is certainly milder than that of India. Typhus, dengue, and relapsing fevers are unknown.

Continued Fever in Mauritius.

With the view of ascertaining the nature of the fever that prevails in the Mauritius I sought information from two medical officers of large experience in that colony. But here also there seems to be a difference of opinion as to the nature of the fever and its etiology. Dr. Davidson thinks the fever is the true typhoid; Mr. Lovell rather inclines to the belief that it is climatic in its origin!

Anomalous Fever in China.

Dr. P. Manson, of Amoy, China, has recently sent home an account of an epidemic of continued fever which occurred in China. It was of a circumscribed character and presented anomalous characters. (b) In some respects it resembled enteric, in others malarial fever. Quinine in some cases was of benefit, in others it failed.

Dr. Manson remarks—"It is very evident that the clue to the proper classification of tropical fever has not been found, and I do not think it will be found until investigation disabuse their minds of the idea that these fevers must be modifications or combinations of two poisons only, the typhoid and the malarial. We are too apt to assume that we can assign correctly the various causes of diseases, and dislike to say, when asked for an answer, 'I don't know,' or to think that there are traces and poisons in nature of whose existence we are ignorant."

The fever was of a continued type—high temperature up to 105° or 106°, diarrhoea, delirium, and some rose-coloured spots. In some of the cases, he says, "the symptoms of typhoid were present; in others they were not, beyond the fact that the fever was continued and was uncontrolled by quinine. In one case that did intermit, quinine had no effect."

Dr. Manson rejects the theory of the combination of typhoid and malarial. "The truth is," he says, "we are nearly entirely ignorant of a number of specific fevers which from time to time affect the inhabitants of foreign countries. I frequently meet with cases of continued fever, both in foreigners and natives, which do not admit of diagnosis and classification, the Jamruc fever for instance, a fever in which there is continued fever, with pains in limbs, head, and epigastrium, and an exanthematous eruption; no diarrhoea, convalescence in twenty days or so."

He asks what were these cases? Certainly not typhoid, certainly not malarial.

The physician here has to deal with a miscellaneous collection of fevers whose diagnosis and treatment he has for the most part to make out for himself. A considerable portion of these may perhaps be relegated to what is called "malaria"; but there is a large residuum, examples of which I have given, that can neither be classified among the known exanthems nor among the malarial fevers. I soon learned to separate them into quinine and non-quinine fevers. If the fever does not yield to quinine, Dr. Manson considers it non-malarial. Every year he says he meets with such anomalous cases, and has great confusion in his ideas with regard to them. "One gets little satisfaction from books on the subject. Certain classifications are proposed, but when the attempt is made to attach a name to a given case, the attempt is seldom satisfactory."

(b) China Imperial Maritime Customs Report, Eleven Special Cases, No. 2, 1881.

There can be no doubt, I think, whatever view may be taken of the etiology of these cases, that they clearly show that under certain circumstances native and European are alike affected by fever with enteric symptoms. It is by careful study of such outbreaks as this, no less than by that of isolated cases, in regard to locality, water, sanitary condition, previous history of the sufferers, and personal attributes, such as age, race, temperament, time of year, etc., we may hope to discover the true causation.

The returns of the Sanitary Commissioner, the statistics of the hospitals, and other records, place the existence of this form of fever among natives beyond question, but the etiology is still uncertain. My own impression is that in one, the case of the European, it may depend on specific organic poisoning, but I doubt if it can be limited to human excreta, though it is probable that this may be one cause, and that for the rest miasmatic poisoning under certain undefined modifying circumstances may give rise to continued or continuo-remittent fever, which is practically indistinguishable from other forms of enteric fever.

That enteric fever should have one specific origin in temperate climates is no proof that others may not exist in climates of a different character. Some of the low forms of fever described by older writers in this country, and indeed by modern ones in France and America, as typho-malarial, paludal typhoid, seem to be or are of this nature, and in this connexion Dr. S. Harley's views on this subject, as referred to by Dr. Wise, seem to me of great interest.

It is worthy of note, and it has been remarked by Dr. Martin and others, that the apparently increased proclivity of the meat-eating and spirit-drinking races to enteric fever is well calculated to awaken attention to the possible effect of the diet of the European soldier in India; but though it may be more frequent, it is not confined to meat-eating natives, as shown by Dr. Wise's cases. I would express my concurrence in Martin's remark that as regards the etiology and causation of enteric fever much uncertainty unquestionably exists. Even in Europe, where its connexion with a specific poison, or with the products of faecal or other organic decomposition, contaminating air or water, seems to be established on a large number of repeated observations, the cumulative effect of which amounts to very forcible evidence, it cannot be said that we have exhausted our knowledge of the causes of this fever.

I think I have cited evidence enough to show that, in the opinion of many officers of experience, ulceration of the small intestines, and Peyer's glands especially, is not necessarily, though very frequently, indicative of a specific form of enteric fever, but that they may occur in the climatic fever, whether of remittent or continued type. I believe a considerable amount of climatic fever occurs in the tropics, in which the symptoms and phenomena so closely resemble those of true enteric fever that they may be, and are, mistaken for them, and that the post-mortem discovery of ulceration, while it attests the severity of the disease, does not proclaim its original cause. I would ask all medical officers in India to study each case in all its aspects most critically, for no one will deny that we have still much to learn about fever in tropical climates.

All this indicates the existence of fever which is neither simple continued, ordinary remittent, nor specific enteric fever, and that it should stand apart, its affinity being with malarial rather than true enteric, though it has much in common with both. It may be that it will, after all, turn out to be true enteric, and if it be admitted that the specific form of fever may originate in animal effluvia and emanations generally, and is not restricted to a specific contagium developed only in human excrement, then I think it is probable enough that in this source we may find its origin, for there are few localities in which organic germs do not taint the air, or pollute the soil or water. Still, the fact that these conditions are often so rife, and yet this form of fever so infrequent, and that the effects of season, locality, age, and want of acclimatisation play so important a part in developing it, seems to indicate that climatic conditions are largely concerned.

Dr. Woodward's typho-malarial seems to me most nearly to describe the form of fever and the conditions in which it occurs; but I confess to some disinclination to adopt a name which indicates hybridity, and would rather incline to Léon Colin's view of a transformation, though I think even this mode of describing it is hardly appropriate; for though the

general aspect of the disease be that of specific enteric, it is possible that careful examination from the very outset, including the previous history, may enable the observer to make out distinctions that will differentiate the fever.

There is no reason to doubt that the same causes produce the same effects in India as elsewhere. I have seen and treated many cases in India that I never thought of assigning to other than a specific cause, whether that was to be looked for in a specific contagion derived from another individual's bowels, in spontaneous evolution, or the decomposition of human excrement, or it might be other decomposing organic matter. But I do claim that typhoid symptoms, diarrhoea, and enteric lesion may and do occur in other forms of tropical fevers, and that these are probably due to organic miasmata, combined with those influences of earth, air, or place that are developed most readily in tropical or sub-tropical climates, but which under certain conditions may and do, as pointed out by older writers, such as Pringle, and later by Woodward, Colin, Gordon, and others, give rise to the same conditions in other climates.

To summarise the facts about this form of fever as it occurs in India. Let me turn to the latest reports and see how the matter is viewed at present; that the preponderance of opinion is in favour of a specific origin for all enteric fever, but there is a certain vagueness as to the etiology, varying from the extremest specificity of a contagium to the more general results arising from decomposition of organic matter generally, or even malaria. Some consider that it is due neither to specific contagion nor miasm, but to changes that take place as the result of certain climatic conditions. No one, I think, disputes the *existence* of enteric fever; and I doubt if any exception would have been made to the name "*enteric*," did it not imply a specific contagion, and thus convey views of specific causation; it suggests questions of importance in regard to the right age, time, and season for sending soldiers there; to say nothing of the hygienic questions arising out of its causal relations. The Sanitary Commissioner's Report of 1877 says that out of 233 cases of typhoid, 92, or 39 per cent., proved fatal; the admission-rate being 4.1 per 1000 of strength. It moreover appears that 2.45 per cent. occurred at or under twenty-four years of age; 1.55 at twenty-five to twenty-nine; 0.99 at thirty to thirty-four; and a few or none above that age; showing that the disease tells most severely on the younger men—in this respect resembling typhoid in England. Again, Bryden, in his Report of the Statistical History of the European Army in India up to 1876 (published 1878), says—"It has no geography; and it is a matter of public observation that no regiment or battery escapes enteric fever in the first year, whatever cantonment of India may be selected." "Out of seventy-three bodies of men, two regiments and seven batteries only returned no case of enteric fever in the first year." And he gives the following analysis of 368 deaths that occurred between 1823 and 1876:—

Ages.	Total Deaths.
24 and under	255
25 to 29	90
30 to 34	17
35 to 39	4
40 and upwards	2

Seventy-five of these deaths occurred within three years after landing in India, and 94 per cent. of the total were among men under thirty years of age. Bryden further says, out of 132 deaths from enteric fever in 1878, 90 occurred in men who had been under twenty-two months in India. This shows that youth and the first year of service in India are the great predisposing causes.

A most valuable report has recently been drawn up by Brigade-Surgeon J. Marston, the able and accomplished secretary to the head of the Medical Service in Bengal. He has had ample opportunity of both seeing the disease and of officially becoming acquainted with all its manifestations, after long experience and careful study of the subject at home, and the following is the purport of what he says after some years of Indian experience:—

"I came out here imbued, rather than otherwise, with a belief in the truth of the views of European pathologists, but Indian experience has compelled me to recognise that those views as to the causes of enteric fever are too exclusive, and quite inadequate to account for the facts; they do not cover anything like all the facts, and they are irreconcilable with some of them.

"Of course if a man desires to view everything through the spectacles of prejudice or preconceived notions, he will discover probably out here what he seeks to find. But how can any specific or other faecal contamination of air, milk, or water account for such facts as these?

"1. The remarkable proclivity to this disease exhibited by recent arrivals in this country.

"2. The occurrence of cases at certain seasons at stations extending over vast areas of country—miles and miles!

"3. The isolated nature of such cases in a great many instances.

"4. Their occurrence at certain definite seasons, *e.g.*, at the hottest and driest, when the wells are lowest, and at the end of the monsoon, when they are highest. And you know what a rainy season is—how it would in a short time carry everything (let alone faecal germs) from the Himalayas to Calcutta or Kurrachee, according to which of the big river courses it took.

"5. Again, from the British dominions in India up to Kabul, you had at almost all the military posts occupied by the various columns in Afghanistan cases of enteric fever, notwithstanding that many of these posts must have been occupied by Europeans for the first time in history.

"I have tried unsuccessfully, and others have done the same, to obtain reasonable proof out here of the operation of those causes *set down as the only and invariable causes of enteric fever* at home. Of course, I do not say such causes do not exist and may not be followed by the same effects out here. It is very likely that faecal contamination of air or water or infection may account for outbreaks in India, but a man would indeed have a hard task to account for all the cases in India on any hypothesis of the sort. The more I think of it the more convinced I feel of the inadequacy of the usually accepted views to account for all, or anything like all, the facts in this country; nay, I go further, and am very sceptical as to their accounting for all the facts elsewhere—in Paris, America, and Britain.

"I wish I could say positively what does cover all the facts, but I cannot. I have, however, hazarded a hypothesis in that printed paper, which you can take or reject."

He says also: "While fully recognising, then, the force of the evidence on which European pathologists dwell in regard to the specific nature of enteric fever and its connexion either with specific or filth causes, it is impossible, on the other hand, to resist the evidence that such causes fail to embrace all the facts observed in this country. It may be urged that when confronted with the positive observations of repeated occurrences in Europe, negative evidence is of very little value, amounting, as it does, to an inability to trace the continuity of a chain of causation, the connecting links of which are necessarily invisible; but the well-nigh universality of the disease here (India), its connexion with age and recent arrival of its subjects, and the seasonal regularity of its appearance, its continuance and disappearance in a newly arrived corps within definite limits of time, are in themselves positive evidence—facts that must be reconciled with any theory which claims to be true for India as well as Europe. They point to a remarkable susceptibility to the disease, at any rate, on the part of young men during their first year or two of Indian service; and this compels us to inquire whether there may not be something in the climate itself and the new conditions of life here (India), irrespective of any specific cause, or any filth cause even, capable of originating the disease in question."

On the whole, I think, as a tentative and working hypothesis, that there are two forms of it in India, which cannot, however, be clinically or pathologically differentiated: one (the larger class) which does not depend on the contagion of any specific poison generated in the intestine of one person and conveyed to another through some vehicle, nor indeed on any faecal poisoning, or poisoning of any kind, unless it be that the patient is autogenetically poisoned by his own faecal matter; the other, occurring in outbreaks (not singly, in isolated cases) and with a history by which the cases can be traced to some common cause, such as infection, fouled air or water, diseased or high meat, etc. These attacks occur together at one and the same time, or following one another quickly among men of the same corps and placed under same conditions; and the ages and length of tropical service of the men are often very different to those of the other variety. Occurring under the circumstances stated, age and service are indifferent elements; within the limits

of a soldier's age any man may be attacked, though the young and recently arrived are more predisposed to it.

In the first variety, however, I am disposed to think climate—meaning by it to include the whole combination of changed physiological conditions environing the young and newly arrived soldier in this country—plays a very important, if not the main, part. It is a notable fact that of a number of fatal cases returned as remittent fever, where the post-mortem appearances disclosed an absence of any intestinal glandular lesion, the subjects are older men and longer resident in the country; whereas, where ulceration of Peyer's patches was found, but the fever has been diagnosed as remittent or enteric fever, the subjects are, as a rule, younger and less long resident soldiers.

Of course it may be that there are specific disease-germs present which come forward under certain meteorological conditions at certain seasons only—in air, soil, or water—and that susceptibility to their action is vastly increased in new arrivals, and a relative or absolute immunity is brought about by longer continued exposure to them. This is an hypothesis required if we are to accept the views of each disease depending upon the action of its own, or its own variety of, germ.

Of the following facts there can be no doubt:—

I. Given a population within the limits of the enteric fever age, recent arrival in India is a powerful factor in its production.

II. The development of enteric fever at certain definite seasons, corresponding with heat seasons, in isolated cases, or groups of cases, according to the existence of the material, at numerous stations extending over a vast distance.

III. That these seasons are not the malarial seasons, nor the places malarial places especially.

IV. That the disease so occurring is clinically and in its morbid anatomy allied to, if not identical with, enteric fever elsewhere.

V. That outbreaks and local epidemics of fever marked by the post-mortem lesions of enteric fever are practically unknown, or have not been recognised among native population.

The deaths from enteric fever among young European soldiers during the first two years of service and at different ages were 9·7 per 1000 under twenty-four years of age, and 10·16 per 1000 from twenty-five to twenty-nine. The rates of liability to the disease were—under twenty-four years of age, 44·31 per cent.; from twenty-five to twenty-nine, 46·08. It would follow from this that between twenty and twenty-five the chances of dying of enteric fever are not very different.

“The question of causation is important if the enteric fever be a specific fever depending on a specific poison, or if it be essentially a filth-fever originating spontaneously from pythogenic causes. Then we should be able to limit the spread of infection, or by sanitary operations exclude it from military cantonments. It is impossible to exclude all conceivable sources of origin. The men are not always confined to barracks, and have access to native villages, etc.”

Marston seems to doubt the existence of enteric fever among the native population, but, as I have shown, it does exist, and were post-mortem examinations more readily obtainable, it is probable, I think, that the characteristic lesions would be found, and not unfrequently.

The medical authorities have given instructions to the medical officers to investigate most closely all cases. But the Secretary says: “Making every allowance for carelessness on the part of some, and for the tendency, inseparable from all official systems of registration and reporting, to execute clinical work in a perfunctory manner, or to assign some cause without considering its relevancy or adequacy, medical officers have utterly failed in India to satisfactorily trace out the intimate connexion of the disease with filth causes of specific infection, with which, according to European authorities, it is invariably connected. Such failure has not been due to any want of zeal on the part of the medical officers, who have striven to harmonise the conviction due to the doctrines in which they have been educated with the results of their Indian experience.”

The soldier on landing in India is placed under entirely new physiological conditions in regard to climate, food, and mode of life. The separate influence of some of these it would be difficult, if not impossible, to determine, but within the term climate are embraced heat and soil, and

under the latter (soil) we may include malaria. It seems quite clear from the tenor of this report that the conviction forces itself inevitably on the medical authorities, that the causal relations of this form of continued fever are not, in India, limited to those which give rise to it here. It is in this doubt that I share, and I feel convinced that there is at all events sufficient to give interest to searching inquiry, and that will probably show, not that there are more fevers, but more causes than has been believed. Then I would still, for the sake of precision of registration, urge the adoption into the nosological returns of something that should distinguish climatic from specific fever.

It seems hardly necessary that I should detail the symptoms and causes of enteric fever, but I shall, as in the case of ague-remittents, sketch them briefly. I shall not attempt to draw any clinical distinction between the continued fever with enteric symptoms and the specific enteric, for I am not aware of anything that could be regarded as absolutely pathognomonic. The probably closer and unbiased observation might in time enable the observer to make distinctions. The history, the circumstances, and the personal peculiarities of the individual would probably give a clue to the etiology. I am aware of the stress laid on the quinine test. All I can say is, that whatever its cause, quinine is likely to be useful if the malarial element prevail; for its anti-periodic and its specific apyrexial properties it is useful. Supposing the fever to be of the specific kind, still quinine will be of benefit as an antipyretic. I have, too, often seen quinine fail to do good in an undoubted malarial paroxysmal fever on the one hand; and, on the other, seen it so effective in reducing temperature in ordinary pyrexia, that I cannot accept it as the infallible test that shall clear up the doubtful etiology of an obscure fever.

Symptoms of Enteric Fever.

Dr. Marston, struck, no doubt, with the varied phenomena presented by fevers in India, says: “There can be no doubt that both a patient admitted with the symptoms and history of ardent fever, and exhibiting a higher range of temperature in the first and second days than is usually witnessed in enteric fever, as well as a patient with the symptoms and rapidly acquired maximum temperature of ague, may go on to exhibit the symptoms, and run through the whole course, of an enteric fever of pronounced type.”

The symptoms are much the same in India as elsewhere, modified perhaps by malarial influences, which, as they frequently colour and modify other diseases, it is not strange that they should do so in this. By some it has been thought that any difference the disease may present in India from that in England is due to the added action of malaria. There are several distinctive characters which differentiate enteric from remittent fever in the early stage, though it is often exceedingly difficult, if not impossible, in the more advanced stages to pronounce on the nature of the case; indeed, I am not aware of any symptom that is pathognomonic.

At the outset it may be as insidious as it is in England, and for the first few days there may be only malaise, chills, perhaps diarrhoea, loss of appetite, weariness, aching of the limbs, and headache. The patient at length lays up, the pulse quickens, the temperature rises, the skin becomes hot and dry, then a thirst, heaviness, and dulness; whilst the thermometer indicates a moving temperature, gradually rising until it reaches 104° or more, with a remission towards the evening. The abdomen becomes distended, and there is tenderness on pressure, especially in the right iliac region, with gurgling. The diarrhoea probably increases, and becomes of a bluish colour; it may be tinged with blood. The tongue is red at the tip and edges, dry, cracked, and tender. The teeth begin to be covered with sordes. During the second week the characteristic spots make their appearance, though they are often absent, and on the dark skin of the coloured races are difficult to detect.

As the disease progresses the patient becomes delirious; the delirium is at first a wandering, but it gradually becomes incoherence, and he may be noisy or muttering, with complete prostration. The diarrhoea increases, the tongue is dry and glazed, the teeth covered with sordes. There may be epistaxis, or hæmorrhage from the bowels, and the patient becomes quite unconscious. The temperature rises to 106° or even higher. He has subsultus of the tendons, muscular twitchings, picking of bed-clothes. Death supervenes from

exhaustion, the result of the disease, or from peritonitis caused by perforation of the ulcerated bowel.

The ordinary duration of the fever is three weeks, often more; in severe cases it may terminate fatally much earlier, probably before the intestinal ulceration has taken place, by the intense action of the poison on the nerve-centres; but in milder cases it may terminate earlier, and it not unfrequently happens that about the fourteenth day the symptoms improve, the temperature begins to fall, the general symptoms abate, the diarrhoea decreases, and the appetite and sleep improve.

In ordinary cases it is identical with enteric fever elsewhere, and in this form I have seen and treated many cases in Calcutta and other parts of India, but it is liable to many varieties and amplifications, and may be a very slight or a very fatal illness.

I have already referred to its great fatality among our young soldiers during the early part of their service. It is, indeed, the great fever death-cause among British troops in India. A certain amount occurs in the civil population, and generally, though not always, among young people. Every year I had cases of masked enteric fever, with all the characteristic phenomena. In none was there any special ground for attributing it to the faecal sources, but of course it is impossible to say that they did not exist. The worst, and a fatal case, that recurs to me was one of a gentleman nearer fifty than forty years of age, and in whose condition and mode of life it would be difficult to trace a specific degree of the disease. I regarded the case generally as an ordinary example of the enteric fever as it occurs in England, but I never could feel satisfied that the origin was quite the same, unless, indeed, organic miasmata be allowed a wider extension than that depending on faecal matter. Were this admitted, causation would not be so far to seek.

It is in the earlier stages and onset of the fever that its true etiology may be detected, commencing insidiously, slowly, and with a gradually rising temperature and slow development of the abdominal symptoms and nervous prostration. Especially when occurring in large communities, in cities and camps, the likelihood of a specific origin seems probable, though I would ask to extend the range of causation beyond mere sewage and faecal contamination.

But when it occurs in the course of simple ardent or paroxysmal fevers, when the rise of temperature at the outset is more abrupt and sudden, and when the thermometer is irregular, I believe that the origin is to be sought in something more general than a specific pythogenic source. I admit the extreme difficulty of differential diagnosis after a certain stage, and when intestinal ulceration has taken place, and can well imagine that septic absorption from these ulcerations may so modify, at the same time assimilate, the symptoms that there is practically no real distinction.

In short, I believe, as I have before said, that in India enteric lesions are apt to come on in the course of miasmatic fever, and that in this condition they not only resemble but become identical with specific enteric fever, which is caused in India as in England. If asked, Why seek for any other explanation than that accepted in this country? I reply that in India the facts are not caused by the explanation that there is more evidence that ordinary climatic fever may assume the typhoid—i.e., enteric—condition than that all enteric fever is caused by faecal contamination.

I venture to think that this view will be taken by others who have the opportunity of extending their study of fevers in India and the tropics.

Treatment of Enteric Fever in India.

It is not necessary that I should enter into more of the symptomatology of the various phases assumed by Indian enteric fever. I have mentioned the chief characteristics, and it would unduly prolong the subject to enter into further details; nor is it necessary that I should say much on the subject of treatment, for, in fact, it is exactly that which is adopted here, and consists mainly in the careful administration of fluid nutrients, avoiding all that could excite or irritate the disordered bowel; that diarrhoea should be controlled, not unduly checked; that temperature should be reduced by apyretics or diaphoretics and, as I think, by the use of quinine in moderate doses; for, whilst especially indicated in the fevers of a miasmatic origin, it is extremely useful in pyrexia, however caused, and the anxiety so often expressed about the true nature of a

fever in regard to the expediency of the use of quinine is needless; whilst as to the mode and extent of its administration the circumstances of each particular case will be the proper guide. As regards wine, or other forms of alcohol, I have generally found them of great use. I have administered them according to the effects they produced, and have seldom had difficulty in ascertaining what these effects were. As to nourishment, I have found that animal broths and milk—perhaps diluted with some alkaline water—have been the most appropriate; and I have always been impressed with the necessity of avoiding any possible source of gastro-intestinal irritation by food, even after convalescence was well established; nor have I experienced any difficulty in effecting due nutrition with simple articles of diet. Relapses occasionally occur, and a nearly fatal one in an officer of long service, who, in the fourth or fifth week, suffered from a recurrence of most dangerous symptoms, simply as the result of eating a few raisins given him by the nurse, left a strong impression on my mind as to the importance of caution as to diet. The temperature charts will show the varied character of the pyrexia, and how little there is that can be said to draw a distinct line of demarcation between the different forms of fever. I regret that I am unable to analyse them at length; I will only ask you to look at them and the specimens on the table, which represent various pathological lesions from fever patients in India, for which I am indebted to Professor Aitken, of Netley, to whom, as to many of my brother officers in India and at home, I am so much indebted, as my frequent allusions to their contributions and the cases they have sent me attest. I should particularly mention Dr. MacConnell, Dr. Joubert of Calcutta, Dr. Sturm of Madras, whilst to all others whose names have been referred to I return my sincere thanks.

I am reluctantly compelled to bring this lecture to a conclusion. I knew the subject was extensive, but it is only in attempting to compress it into the short space allowed to these lectures that I realised the magnitude of the work I had undertaken. I am sensible I have left much unsaid that should have been considered, and that I have but imperfectly availed myself of the time at my disposal. I had hoped to have considered the subjects of typhus, relapsing, dengue, and Indian plague; but these for the present must be deferred. It only remains for me to thank you for the attention with which you have listened to my imperfect endeavour to add something to the story of Indian fever.

The diagnosis between specific enteric and climatic enteric is often very difficult. The close resemblance between some remittents and the specific forms is very great. It is by observation of the earlier symptoms and study of the previous history that the distinction will be practicable. In the specific form the invasion is gradual, and it is not for some days, during which the temperature rises in the evening, until about the fourth evening, that it attains to 104° . In the climatic or malarial forms the premonitory symptoms are more sudden. There is more marked chill or rigor, the malaise is greater, the temperature rising to 104° or 106° as early as the evening of the first or second day, though these distinctions are not always well marked, and it may be quite impossible to establish these points of diagnosis. There is diarrhoea in both and all the other symptoms; ulceration being established, the phenomena become identical. The rose-coloured spots are by some regarded as pathognomonic, but they are often observed in cases of specific enteric, and it is very difficult to detect them on the dark skins of natives; it is quite possible that they may, standing in relation to the bowel ulceration, occur, however that condition is established. The premonitory stage is of a different character, the onset being more sudden and ushered in by chills or rigors, the temperature rising above 104° often on the first day.

There is, as in all fevers of malarial origin, a disagreeable sensation of chill from contact of air; cutis anserina even when the body temperature is very high. Dr. Wise has observed that the stools are always acid; to this he has paid much attention, and he thinks it a point of considerable importance. He further remarks that the eyes were always bright and glistening, and the anxiety depicted on the countenance of the specific typhoid patient is wanting. In regard to the state of the tongue, eyes, urine, otherwise he had not formed any definite conclusion.

Dr. B. Browne, of Lahore, has noted the points of dis-

inction between remittent and typhoid in a paper in the *Indian Medical Gazette*, September, 1879, and he notes the points to which I have already referred, and adds that an important means of diagnosing these diseases is the treatment by quinine. In remittent fever if large doses of quinine be given, the fever will in most cases be cut short, which is not the case in typhoid. Quite true; but there is not much danger of confounding a remittent with intervals of well-pronounced remissions with typhoid. The cases in which there is difficulty are the continued or continuous remittents, and there quinine will not cut short the fever, though it will reduce the temperature, and for this reason is a most valuable remedy. In fever with enteric ulceration, however caused, it is not to be expected that it could be cut short; and therefore quinine cannot be regarded as the crucial test, though in the earlier stages, before ulceration has set in, it certainly may prove so. It is on points of detail of this kind that further observation is required, and I would ask our colleagues in India and the tropics to consider this among other desiderata, for it is in the study and careful observation and comparison of these special features that the main issues will be determined. General descriptions abound, and it seems that all that is wanted is further investigation, with the absence of all bias in favour of this or that theory, of the facts bearing on etiological and pathological relations of these fevers.

ORIGINAL COMMUNICATIONS.

FIVE CASES OF HARE-LIP;

WITH SOME REMARKS ON THE OPERATION FOR THE CURE OF THAT DEFORMITY.

By JAMES WHITSON, M.D., FF.P.S.G.,
Extra Dispensary Surgeon, Glasgow Royal Infirmary.

THE operation for the cure of hare-lip is one which admits of much ingenuity and skill on the part of the surgeon. Different methods of performing it have been suggested, all having one common aim—the removal of the deformity, and the substitution for it of a lip as much in accordance with the normal state as possible. I propose giving an account of some cases which have recently come under my care.

The first case was that of M.D., aged four months, who suffered from a single hare-lip on the left side, as well as from cleft palate. She was admitted to Ward XXVIII. of the Royal Infirmary on August 3, 1880. Next day the patient was well wrapped up in a large towel, and put under chloroform. The lips were thoroughly freed from the gums on either side, and a portion of the inter-maxillary bone which projected was removed by means of the ordinary bone-forceps. A vessel in this which bled freely was seared with the point of the thermo-cautery. The edges of the lips were now pared down to within a short distance of the prolabium. Two hare-lip needles were inserted, and the raw edges were approximated by means of silk thread wound round each of them in the form of a figure of eight. The flaps having been brought down, two sutures of horsehair were passed through them in order to keep them in accurate apposition, and a little redundancy which existed was removed with the scissors. The ends of the needles were snipped in the usual way. Union was found to have taken place at the end of seventy-two hours, and the patient was taken home by her mother in the course of a few days.

The second case is that of C. B., aged two months and a half, who suffered from a single hare-lip on the left side, and from cleft palate. She was operated on, in the dispensary of the Royal Infirmary, on September 8, 1880. The lips were thoroughly freed from the gums, and a portion of the inter-maxillary bone which projected was removed by the bone-forceps. The edges having been pared to within a short distance of the free margin, the flaps were brought down before approximating the raw edges of the lips by means of the needles. Two sutures of horsehair were put into the prolabium, and a little redundancy which existed in this was removed with scissors. The needles were taken out on the third day, when union was found to have taken place. The patient did extremely well.

The third case was that of P. K., aged five months, who suffered from a single hare-lip on the left side, and from cleft palate. The operation was performed on March 26, 1881, in Ward XXVIII. of the Royal Infirmary, and in a way similar to that of the preceding two. The lips were thoroughly freed from the gums on both sides, and a projecting portion of the intermaxillary bone was removed with the forceps. A vessel in this which bled freely was seared with the point of the thermo-cautery. The edges of the cleft were pared, and the flaps were brought down in order that the cut surfaces might be approximated. This was accomplished by means of two hare-lip needles, and a stout thread of silk was wound round them in the form of a figure of eight. Two horsehair sutures were put into the prolabium. The needles and sutures were removed at the end of seventy-two hours, when union was found to be accurate and good. The patient was dismissed well soon after.

The fourth case was that of C. W., aged three months and a half, who suffered from double hare-lip with cleft palate. I operated on him in the following way, on September 22, 1881:—The patient having been wrapped up in a towel, was put under chloroform, and the lips thoroughly freed from the gums. A portion of the intermaxillary bone which projected was removed in the usual way, and the bleeding points were touched with the thermo-cautery. The edges of the cleft and septum were then freely pared, the latter on three sides. A good broad flap on the right side was retained, while as much as was necessary on the other was similarly treated. The raw edges were approximated with sutures of horsehair, and the flap on the right side was brought along and secured to the lower edge of the septum as well as to the prolabium of the other. A good strong strip of plaster was then applied from ear to ear in order to relieve tension. At the end of seventy-two hours union was found to have taken place, except at the lower border of the septum. Unfortunately, in endeavouring to close this opening the wounds separated. I at once brought them together, but only the right side held, and I resolved to allow the parts to heal before re-touching it. The child for some time afterwards was in poor health, and it was not till February 17, 1882, that I again operated. The cleft was now a single one, pretty wide, especially so at its lower borders. I therefore rawed the edges well, taking a good large flap from the right side, and brought it along so as to unite with the prolabium of the other one. Three stitches of silver wire were introduced into the lip, and three of horsehair into the prolabium. No plaster was applied, and the case did admirably. The stitches were removed on the fourth day, and the patient is at present (April) a strong healthy boy.

The fifth case was that of J. S., aged two years and ten months, who suffered from a single hare-lip on the left side. On December 9, 1881, the patient was put under chloroform, and the lips thoroughly separated from the gums. The cleft was freely pared, the incisions being made somewhat concave. The flaps were cut away and the raw edges were retained in apposition with sutures of silver wire. Two threads of horsehair were passed through the prolabium. The case did excellently, and the stitches were removed on the fourth day. This child, on account of his size and strength, was kept for the first few days after the operation under the influence of opium, and with marked benefit. The appearance of the lip two months afterwards was not quite so good as that of the fourth case.

Remarks on the Operation.

In performing the operation for the cure of hare-lip there are several points which, if attended to, add much to the probability of a successful result. The lips should be thoroughly freed from the gums in order that there may be as little tension of the parts as possible, and in doing this the edge of the knife should be directed towards the upper maxilla. In this way the hæmorrhage is reduced to a comparatively trifling amount. The edges of the cleft should then be put on the stretch by means of two pairs of spring forceps, one pair being placed at the upper or nasal extremity, and the other at the lower border.

A tenotomy-knife is now made to transfix the entire thickness of the lip close to the nose, and is carried downwards as far as is necessary. After this the flap is freed at its upper extremity. A similar operation is performed on the other side. In cutting the flaps a good slice should always

be removed, as it is better to take too much than too little, and the reasons for this are not far to seek.

There is a larger breadth of rawed surface to unite, and consequently there are a greater number of vessels capable of anastomosing with each other. Any bleeding point is more easily seen and the flow of blood arrested, while the sutures get a better grasp of the tissues.

Various plans have been devised to prevent the after-formation of a notch in the lip. Some surgeons recommend bringing down both flaps, uniting their cut surfaces to one another, and removing the redundancy with the scissors. Others make their incisions concave, with the concavity towards the cleft—their aim being to give a fulness to the lip.

A better plan than either of these is to bring down a good thick flap from one side, carry it along, and unite it to that of the other. The lip has thus a full amount of prolabium, which gives it an even and natural appearance. The flap which comes in contact with its lower border counteracts the natural tendency to shrink upwards, and helps to keep the raw edges of the cleft in apposition and so promote their union.

In regard to sutures there is much difference of opinion. Some still prefer the needles, but as a general rule their use is going out. They leave a mark, and if there is much tension the pressure of the silk which is wound round them is apt to cause ulceration, as well as to impair the vitality of the tissues in their neighbourhood. They have the additional disadvantage of greatly concealing the lip, and the thread forms a nidus for particles of food or other substances capable of undergoing decomposition.

Horsehair and catgut have each their advocates, but the latter has more pliability than the former, and admits of a nicer adaptation of the parts. The durability of gut, and its power of resisting the action of the tissues, are greatly increased when it is previously steeped in a solution of chromic acid.

Hair is apt to cut, but it does very well for the prolabium, where it is not subjected to much strain, and I have found fine silk thread to be equally reliable.

Silver wire, though not without drawbacks, forms an excellent suture, and when it is used the ends should be laid flat on the lip. By this means they are not so apt to catch, and thus lead to derangement of the cut surfaces.

A curved needle is preferable to a straight one for passing the sutures through the tissues. It adapts itself more readily to the position of the parts, and it should be made to penetrate through nearly the entire thickness of the lip. The object of this is to bring the whole of the raw edges in accurate apposition.

It is a good plan to pass the first suture at the upper or nasal extremity, and great pains should be taken to see that it fulfils its functions efficiently, for if there be any relaxation of the union here the lip will certainly be drawn upwards.

The next one should be placed at the lower border, and the remaining one or two in the middle of the lip.

Lastly, a sufficient number of threads of horsehair or fine silk can be used for the prolabium.

The needle may with advantage be inserted from alternate sides. In this way the balance of the lips is more equally sustained, and the sutures should not be finally secured till all are in their proper places.

Plaster is frequently used after the operation, with the view of relieving any tension which may exist. It does so, certainly, but it soon gets damp and soiled from the milk with which the child is fed, and as a natural consequence the skin in its immediate proximity has a tendency to become excoriated.

An excellent way of relieving the strain on the parts is by means of a button suture, with a double thread of silver wire or gut, which can be drawn to the necessary tightness.

The button of Macewen, from its admirable simplicity, answers all ends, and may be described to those who are not acquainted with it as a piece of tin, not unlike a halfpenny, but more oval in shape. In the centre of it are two holes, through which the threads are passed, and the desired amount of pressure can be regulated with the greatest evenness and nicety. These should be removed at the end of forty-eight hours. If retained in position beyond that time they are apt to leave a mark.

The truss of Hainsby, provided it fitted accurately, would answer quite as well, and would be of benefit if worn for some time before operating.

Some surgeons are in the habit of keeping the patient under the influence of opium during the progress of healing, but, not having much experience of it, I cannot speak authoritatively on the point. One thing is certain, the administration of such a drug to young children would require to be conducted with extreme caution.

In removing the stitches, it is an excellent plan to give chloroform. There is no struggling or crying under the influence of the anæsthetic, while if these are taking place it is sometimes no easy matter to accomplish the object we have in view.

When hare-lip is complicated with cleft palate, the cure of the former is a great adjuvant to the successful treatment of the latter, inasmuch as the steady compression of the united lips exercises a most beneficial effect in approximating the edges of the fissure towards one another.

OBSERVATIONS ON

THE PRE-ERUPTIVE STAGE IN SMALL-POX;

WITH HISTORY OF CASES.

By MONTAGUE D. MAKUNA, L.R.C.P. Lond.,

Late Medical Superintendent, Fulham Small-pox Hospital.

(Continued from page 552.)

DR. MURCHISON gives some evidence which might go to show that infectious diseases are communicable by inoculation, or are contagious during the period of incubation. 1. He quotes the case of Schapper, given by Curschman, in whom the virus was inadvertently inoculated during the operation of skin-grafting from a patient in whom the initial stage of small-pox manifested itself a few hours afterwards. As the event occurred during the last hours of the incubation stage, it is hardly fair to ascribe it as having occurred during that period. 2. He states that there are many observations on record showing that the bite of a dog infected with rabies may give hydrophobia, although the rabies is still in its incubative stage, and the animal to all intents well. I myself have seen several such cases in India. But the fact is that hydrophobia, either in the canine species or human beings, is a contagious disorder, reproducible by inoculation only, as syphilis is; consequently the analogy, to my mind, is inappropriate. 3. He gives cases of vaccination in which erysipelas was developed from one, the source of the lymph, who a day after was attacked by it. This might render the contagiousness of the period of incubation probable.

We learn from the experience of Dr. Murchison, and that of Dr. Percy of Glasgow, that typhus is not contagious before the ninth day, and that it begins to be most contagious from the end of the first week.

Harnier gives six cases of measles in whom the infection could have been during the prodromal stage only.

Dr. Bristowe states that small-pox is infectious from the initial to the scabbing stage, and that it is most infectious at a time when vesicles mature. I believe such is also the opinion of Dr. Burdon-Sanderson. Dr. Klein, in his experiments on animal variolisation for the Local Government Board, took a large quantity of variolous lymph from my patients. He always preferred to collect it from those cases where the vesicles were large and the lymph clear, viz., the time when the vesicles were mature. In doing so he was of opinion that it was most efficacious at that period. Curschmann states that in the initial stage infection may take place, and it does so; but the time when the disease is most infectious is the earliest period of suppuration.

I have formed an idea that these opinions, founded on varied and extensive experience, conform to the pathological conditions of the infectious disease and to the germ theory of the propagation of infection. For instance, the virus is received into the system of a patient. The seeds, when placed in a fertilising soil or nidus, propagate their growth during the period of incubation; but the virus during this stage is not capable of infective emanations, but it can be translated from one nidus to another. Having reached a certain stage of growth, and taken up the nutriment from the system, the disease upsets the normal functions of the body, and

manifests itself during the initial stage. Having overthrown the balance of power, it gains an ascendancy, makes rapid strides as a conqueror's army does in plundering a foreign country, shows itself in eruption and other concomitants of the disease—as the conquerors would make a luxurious living on their booty,—and reaches its climax at the time of the fully formed vesicles. The nourishing power having been exhausted, it begins to show signs of decay in the process of the suppuration of the varioles, and dies the death of a remorseless enemy during the scabbing stage.

I quote a case to the point, which gives negative evidence that the period of incubation is non-infectious.

E. B., of Lambeth, aged twenty-three, with four indifferent marks of vaccination, was first taken ill on May 5, 1879, the day of the eruption, and was admitted to the hospital on May 8. She suffered from variola discreta, and was discharged recovered. Her son, aged five weeks, unvaccinated, was admitted with the mother, and successfully vaccinated with six punctures, the operation having been performed the same day, May 8. He did not suffer from small-pox, but took varicella from another baby, and whose case I have given in the *British Medical Journal* (1879). Taking for granted that the latent period in small-pox is about twelve days, and in vaccinia about a week, and as the operation in him was performed three days after his exposure to the infection from the mother in her eruptive stage, the infant was within two clear days of overcoming evil effects of the contagion. The child was being suckled by his mother during her illness. I have seen several such cases in infants. It is remarkable how these babies, living in contact with their mothers day and night, being suckled, inhaling the exhalations from the skin of their parents, and the breath while kissing and so on, yet do not seem to suffer in any way from the constitutional taint of the parents. I can explain this condition in one way only, viz., that at this period the infection in them is non-infective. The ninety cases of prolonged exposure to the infection give clear proofs in support of this proposition as I have stated above. In counting the period of incubation, or pre-eruptive stage, where the initial stage has been absent, I count the first day of the initial stage, or, in its absence, the first day of eruption in the primary cases, as the first day of incubation in the secondary cases.

Cases of Prolonged Exposure to Infection.

Case 1.—W. H., of Chelsea, aged twenty-eight, with three indifferent marks, was first taken ill on April 5, 1877; the date of eruption was April 7; he was admitted on April 9, suffering from V. discreta, and was discharged recovered. J. H., his brother, aged nineteen, with four good marks, was first taken ill on April 19; date of eruption 20th. He was admitted on the 21st, suffering from V. discreta, and was discharged recovered. He was exposed to the infection for five days. The period of incubation in him was fourteen days, and the pre-eruptive stage was fifteen days.

Case 2.—A. M., aged two, unvaccinated, had eruption on her on January 28, 1878, and was admitted to the hospital on February 3; she suffered from V. confluens, and recovered. Her sister, L. M., aged seven, with three fresh marks of vaccination, had eruption on her on February 11, and was admitted on the 13th; she suffered from V. discreta, and recovered. She was exposed to the infection for about nine days, and the pre-eruptive period was about sixteen days.

Cases 3, 4, 5.—Mrs. E. L., aged forty-two, unvaccinated, was admitted to the hospital on March 11, 1878; the date of eruption March 9. She suffered from V. maligna hæmorrhagica of a very bad type, and recovered. Her husband, R. L., aged forty-three, with a trace of vaccine cicatrix, was admitted to the hospital on March 27; had no premonitory; date of eruption March 26; he suffered from V. confluens, and died. He was exposed to the source of infection for three days, and the pre-eruptive stage in him was seventeen days. M. M., a lodger in the same house, aged nine, with three indifferent marks, was admitted on March 27; date of eruption March 26; she suffered from V. discreta, and recovered. She was exposed to the source of infection for three days, and the pre-eruptive stage in her was seventeen days. G. C., aged twenty-one, with two indifferent marks, a lodger in the same house, was admitted on April 16; headache on the 8th, sickness on the 9th; date of eruption April 11; disease V. discreta; recovered. He took the

disease from R. L.; he was exposed for one day; in him the period of incubation was thirteen days, and the pre-eruptive stage was sixteen days.

Cases 6, 7.—E. W., aged fifteen, with one indifferent mark, was admitted on March 8, 1878; date of eruption March 5; she suffered from V. confluens, and recovered. Her sister, F. W., aged twenty-one, with three indifferent marks, was first taken ill and had backache on March 22; date of eruption 24th, admission 26th; she suffered from V. hæmorrhagica, and died. She was exposed to the infection for six days, and the period of incubation in her was sixteen days, and the pre-eruptive stage eighteen days. Their brother-in-law, J. K., aged twenty-four, with four good marks, was first taken ill on March 23; date of eruption 26th, admission 29th; he suffered from V. discreta, and recovered. He was exposed for six days; the period of incubation in him was twenty days, and the pre-eruptive stage was twenty-three days.

Case 8.—T. S., aged six, unvaccinated, was admitted on March 29, 1878; date of eruption 27th; he suffered from V. coherens, and recovered. His father, aged thirty-six, with one indifferent mark, was admitted on April 15; date of eruption April 14; he suffered from V. confluens, and recovered. He was exposed for about five days. In him the pre-eruptive stage was about twenty days.

Case 9.—G. G., aged seventeen, with four good marks, was admitted on March 26, 1878, the date of the eruption; he suffered from V. varicelloides, and recovered. A fellow-lodger in the same house, S. K., aged twenty-eight, with two good marks, was first taken ill on April 8; date of eruption and admission April 10; he suffered from V. discreta, and recovered. He was exposed for about two days. In him the period of incubation was fifteen days, and the pre-eruptive stage was seventeen days.

Case 10.—M. K., aged thirty-nine, with two indifferent marks, was admitted on March 28, 1878; the date of eruption in her was the 24th; she suffered from V. confluens, and recovered. Her daughter, E. K., aged fourteen, with three indifferent marks, was first taken ill on April 7; date of eruption April 9, admission April 11; she suffered from V. discreta, and recovered. She was exposed for seven days. The period of incubation in her was about sixteen days, and the pre-eruptive stage was eighteen days.

Cases 11, 12.—M. G., aged forty-two, was admitted on March 4, 1878; date of eruption March 1; he suffered from V. confluens, and recovered. His two daughters, E. M., aged fifteen, with a trace of vaccine cicatrix, and M. M. M., aged fourteen, with one good mark, suffering from V. confluens and discreta respectively, were admitted on March 16, the date of eruption; they both recovered. They were exposed for four days, and the pre-eruptive stage in them was seventeen days.

(To be continued.)

SANITARY ASSURANCE.—A public meeting is to be held at the Society of Arts, Adelphi, on Monday evening, June 12, under the auspices of the Sanitary Assurance Association, when Sir Joseph Fayrer, K.C.S.I., F.R.S., will preside, and Mr. H. Rutherford, barrister-at-law, will deliver an address on "Sanitary Assurance from a Householder's Point of View." Admission to the meeting is to be free, and the following gentlemen are expected to take part in the discussion which will follow the address, viz.:—Mr. Brudenell Carter, Mr. Andrew Cassels, Dr. Farquharson, M.P., Captain Douglas Galton, C.B., F.R.S., Dr. Danford Thomas, and Professor T. Roger Smith, F.R.I.B.A.

VOLUNTEER AMBULANCE DEPARTMENT.—The interest amongst volunteers in ambulance work seems unabated. Two classes instructed by Surgeon-Major Baines, M.D., 1st Middlesex Engineer Volunteers, were officially inspected on May 25, at Birdcage-walk, by Surgeon-Major Don, M.D., A.M.D. The inspecting officers witnessed the drill of the company and its stretcher exercise, and examined the bearers on various points connected with the application of dressings and care of the wounded on the field. At the conclusion of the inspection he congratulated the company and its instructor on the efficiency evinced, and the steadiness and correctness of the drill as authorised by the Red-books of the Service. Another ambulance class for volunteers will commence next month at Guildhall.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LIVERPOOL ROYAL INFIRMARY.

SERIES OF HERNIA CASES.

(Under the care of Mr. RUSHTON PARKER.)

(Continued from page 556.)

Case 14.—Strangulated Inguinal Hernia—Gangrene—Excision of Omentum, Mesentery, and Gut, with Reunion—Death.

J. G., aged sixty, a hard and previously healthy brick-maker, admitted March 3, 1882, had had a right scrotal hernia for years, always reducible until February 28, on which day he had his last stool, and had passed no wind since. On the 29th Dr. Parry was called in, and found him vomiting, and tried to get him to go at once to hospital for the relief of his strangulated hernia; but the patient took a course of his own, and tried an unstinted assortment of purgatives for two more days, during which vomiting persisted with frequency. After admission he lay on his left side retching, and sometimes vomiting foetid intestinal fluid.

The breath was cool and sweetish in odour, in addition to the foetor ejaculated; the pulse was under 110, and soft, with moderate volume; the hands were cool and clammy, but the covered parts were not; and his grisly, unshaven, somewhat pinched facial appearance, seen on a ground of healthy ruddiness, and associated with some mental vigour, were thought to suggest the dilapidation of fatigue rather than the misery of collapse. The right scrotum was distended, hard, and red; the swelling extended up the inguinal canal, and was free from impulse on coughing. No taxis was, of course, undertaken, but the parts were shaved, cleansed with ether, and carbolised. Herniotomy was done over the outer side of the inguinal canal, under ether and Lister's spray and complete carbolic acid method. On reaching the sac foetid bloody fluid issued, and was quickly evacuated, with black foetid clots, the fixed internal parts being freely swabbed with hot carbolic lotion. A mass of omentum, partly gangrenous (grey), and all covered with the foetid bloody fluid, was tied with catgut above contact with gangrenous parts, cut below the ligatures, the stump well washed with lotion, and reduced. A coil of gangrenous small intestine (black and in part shreddy and perforated), very foetid, was washed, enveloped in a carbolised rag, pulled down with more gut, and the healthy parts washed and kept under the spray. A piece of gut about six inches long was excised, with some attached mesentery, in cutting free of the gangrenous portion. Forceps and fingers were used to clamp while the vessels were tied. Subsequently about six inches more of gut, purple and untrustworthy-looking, were removed, and the stump clamped as before and its vessels tied. The two ends of gut were then inverted, and stitched together with catgut all round by interrupted and continuous suture. The gap in the mesentery was also closed with catgut sutures, chiefly continuous, and all was again washed and then returned into the abdomen. The sac being foetid, green and black, in the scrotum, was stripped and cut away, being tightly and doubly tied at the internal ring, where its vitality was preserved. The incision was then extended down the scrotum to the lowest limit occupied by the sac (which proved to be acquired, and above the testicle and its coverings). Strong chloride of zinc solution was soaked into the tissues now exposed, and into the stump of peritoneal sac, and the wound filled with gauze steeped in cream of salicylic acid, suspended in carbolised glycerine, packed over with wet and dry gauze, and covered in a gauze dressing, including a perineal pad, according to Mr. Lister's excellent plan.

The patient began to look intelligent before leaving the table, and hot bottles were put to him in bed. He was not very long in becoming comfortably warm, and a satisfactory night was passed. On the second day the dressings were changed, and dry iodoform was rubbed throughout the wound, which had already imparted a slight foetor to the lining plug. The tissues where putrefaction had existed were black, presumably from combination with the zinc;

and very dry, owing apparently to the glycerine. A fresh plug, with salicylic cream, was laid in over the iodoform sprinkling, and the dressing renewed as before.

The patient had not vomited a single time since the operation; the tongue was now moist, and nearly clean; the belly was slack, and free from tenderness. The pulse was 120, and the thirst great. A little morphia was given subcutaneously a few hours after his return to bed, but nothing was administered by the mouth. To allay his thirst he had only been permitted to suck a wet towel, but was now allowed an occasional teaspoonful of water. He was quite himself, and wanted a pint of ale or water to drink, complaining greatly of thirst. He lay talking easily, folding his arms, and looking well; moreover, he paid an earnest tribute to Dr. Parry and to the anxious efforts that gentleman had made on behalf of earlier operation, assuming to himself the whole responsibility of the disastrous purging to which he had submitted himself. He began, however, to get low about twenty-four hours after the operation, and sank quietly after about thirty-six hours.

At the post-mortem, the reunited parts were found secure, and the bowel-junction apparently water-tight, all adhering together and to the obliterated entrance of the sac by fibrinous lymph free from yellow or green colour. The intestinal coils above the site of the hernia lightly adhered by a thin layer of fibrinous lymph, and were injected a little along intervals between the adherent surfaces. The peritoneum was free from fluid, and the lymph exuded showed no trace of puriform admixture. The rest of the bowel lay contracted and almost empty behind. No further damage was noticed now, but subsequently came to light on re-examination of the foot or two of intestine adjacent to the seat of operation which was preserved.

Remarks.—The death is naturally attributed to septicæmia, of which the commencement was suspected before operation. The satisfactory condition on the following day led to the supposition that any incipient septicæmia had been arrested, or had perhaps not even taken place. So, when death after all occurred, the source of a fresh dose of septic poison was looked for at the post-mortem, but not unmistakably found. The wound, though not yet totally free from decomposition, had almost completely yielded to disinfection, and was thought to be no longer a source of danger; while re-infection by way of the peritoneum seemed at first quite unproved. Then again, the original dose of poison before operation, if any at all, seemed to have been exhausted in the face of such decided temporary improvement. Yet the intra-peritoneal lymph, though scanty and free from puriform change, seemed to tell a tale. Some days later, on re-examining the portions removed subsequent to death, after they had lain in spirit, commencing gangrene was distinctly found in patches and without properly established lines of demarcation. In some places the mucous coat was involved as well as the serous. From these patches there must have been abundant source of continuous intra-peritoneal absorption of putrid fluid. The condition of the patient was truly desperate—more so than could be recognised, and much more so than the symptoms suggested. He was very nearly rescued, and that by a method of treatment which is one of the irresistible developments of the antiseptic principle.

Case 15.—Strangulation of Old Inguinal Hernia—Symptoms almost totally Masked—Herniotomy—Radical Cure.

George S., aged forty-seven, had had a left inguinal hernia for about ten years, always reducible until April 16, 1882, when he thought he walked too far. However, he vomited his breakfast on his return at noon, and vomited or retched four other times the same day; being visited by Dr. Hardman at Blackpool, who, failing to reduce the hernia, proscribed all food, and gave a hypodermic injection of morphia, repeated at night. The next day taxis again failed. The scrotum and inguinal canal were moderately distended by a hernia, devoid of resonance and expansile impulse on coughing; but the patient was free from pain, abdominal distension, vomiting or retching, and in fact from all symptoms except local tenderness and uneasiness, and a certainty that he had passed no wind, and could pass none, since the descent. Elevation of the pelvis and total abstention from food left the hernia still down, its size being about eight inches by four outside the skin.

On the third day (April 18) herniotomy was done by Mr. Parker, the patient being put by Dr. Hardman under

In October, 1879, the Clinical Society appointed a Committee of its members to "investigate the causes, consequences, and treatment of hyperpyrexia in rheumatic fever and other acute diseases." The Committee consisted of Drs. Southey, Hermann Weber, W. M. Ord, F. Taylor, T. Barlow, and Sidney Coupland; and at the last meeting of the Society, on Friday, the 26th ult., they presented to the Society a report upon "Hyperpyrexia in Acute Rheumatism." The report is very full and long, and only an abstract, which will be found elsewhere in our pages, was read. The Committee limited their report to an analysis of sixty-seven cases, collected from various sources and mostly unpublished, and which had occurred mainly in the ten years ending 1879. These cases they classed in three groups: 1. Forty-seven cases of undoubted hyperpyrexia, with an elevation of temperature to 106° and above. 2. Seventeen cases showing a marked tendency to a high range of temperature—viz., 104°, continued and persistent. 3. Three cases, with the symptoms well marked, characterising usually the hyperpyrexial cases, but without marked excess in temperature. The cases were first compared with ordinary cases of acute rheumatism, with the view of ascertaining whether cases exhibiting hyperpyrexia present any other clinical differences; then a more precise analysis was made of the hyperpyrexial cases and their treatment; and finally the Committee state the general conclusions to which they had been led by the inquiry. In order to find out whether the hyperpyrexial cases differed in any way as to etiology, course, complications, or issue, from ordinary cases, a statistical comparison was made by utilising the returns of 1300 cases of acute and subacute rheumatism, included in the Registrars' reports of the Middlesex Hospital for the years corresponding to those in which the hyperpyrexial cases mainly occurred: this number of cases included twenty-two cases of hyperpyrexia. The general conclusions drawn from this part of the in-

vestigation are:—1. That cases of hyperpyrexia in acute rheumatism appear to prevail at certain periods; and have been, in the last decade, remarkably numerous in the years 1873-76, but much less frequent latterly. That such excess corresponds in a certain degree, but not in actual proportion, to a similar excessive prevalence of acute rheumatism generally; and that the largest number of hyperpyrexial cases arose in the spring and summer months, while rheumatism is relatively more common in the autumn and winter. 2. That very little difference obtains between the two sexes in respect to proclivity to rheumatism, but the proportion of males to females exhibiting hyperpyrexial manifestations is 1.8 to 1. That no such marked difference was found as regards age, nor as regards occupation. 3. That the subjects of hyperpyrexia show no undue rheumatic tendency as regards family predisposition. 4. That hyperpyrexial cases markedly preponderate in first attacks of acute rheumatism. The records examined did not afford an instance of hyperpyrexia in any attack after the third. 5. That hyperpyrexia may itself be fatal, without any visceral complication; but that the complications most frequently associated with it are pericarditis and pneumonia. 6. That the mortality in such cases is large, hyperpyrexia being one of the chief causes of death in acute rheumatism. 7. That neither an abrupt disappearance of articular affection, nor a similarly abrupt cessation of sweating, is an invariable antecedent of the hyperpyrexia, though these symptoms, when they occur, are of much value from their prodromal significance. 8. That the supervention of delirium, or other symptom of nervous disturbance, is very frequent, either antecedent to, or simultaneous with, the appearance of hyperpyrexia. 9. That in the date of the occurrence and in the duration of hyperpyrexia there is considerable variability. That when fatal it occurs most often in the second and third week of the rheumatic attack; and that the post-mortem examinations in a certain proportion showed no distinct visceral lesions; and that these, when present, were not necessarily extensive.

The hyperpyrexia varied in intensity and duration, and also in the manner and time of its appearance; its characteristic feature being its capriciousness. A critical study of the temperature charts in forty-seven cases led the Committee to discriminate five types of the condition, as regards its mode of onset, and the course taken by it; though of course, as is pointed out, the classification thus made is a somewhat arbitrary one, intermediate forms being met with. 1. In eleven cases the temperature, after rising gradually for a few days, suddenly culminated in a maximum by an exacerbation of several degrees. 2. In twelve cases the temperature, after maintaining a moderate level for one or more days, suddenly rose to excessive heights. 3. In a small number of the cases the pyrexia ran a more continuous course, not unlike that of typhoid fever, without violent or excessive exacerbations. 4. In another small group also the temperature rose gradually to a maximum, and then yielded permanently to the cold bath or wet pack. 5. In eight cases of severe character the tendency to the hyperpyrexial condition was very marked, so that the cold baths had to be frequently repeated in order to control it; and in some nine cases the course of the temperature was so irregular that they could not be classed. The rate of mortality in these hyperpyrexial cases is very high, as we have already noted, and as, indeed, is but too well known. Almost one-half of the cases died—viz., thirty-three,—whereas the death-rate of acute rheumatism exclusive of cases of hyperpyrexia was only 1.8 per cent. Complications were in the hyperpyrexial cases more frequent in the cases of recovery than in the fatal cases. This leads us to the most immediately practical and most generally interesting part of the report, that

which deals with the question of treatment. Amongst the various methods for the reduction of temperature by the external application of cold, that of the bath was the one most generally employed; forty-six of the cases having been treated in that way, some of them evidently as a last resort. Hence the mortality was high—twenty-two deaths to twenty-four recoveries; but among the non-bathed there were eleven deaths to ten recoveries. Of the non-bathed which recovered, none exceeded a maximum temperature of 106°; whereas amongst the bathed a large proportion of the total were cases in which the temperature reached above that level; and, again, in six out of the eleven fatal cases not bathed, the maximum was below 106°, while in but very few of the fatal cases that were bathed was the maximum below that temperature. The average maximum temperature in the fatal cases was 107° in the non-bathed, 108.2° in the bathed. The Committee remark that no doubt differences exist in various cases with respect to the most suitable time for having recourse to the treatment by baths, and they emphasise the injunctions given by others that indications for its employment must be looked for in the prodromal signs, together with a rising temperature. It seemed to them that the treatment “not only reduces temperature, but allays delirium, reduces the frequency of and gives strength to the pulse, and induces sleep.” And the conclusions they draw as regards this part of their investigation are, “that the prompt and early application of cold to the surface is a most valuable mode of treatment of hyperpyrexia; that the chances of its efficacy are the greater the earlier it is had recourse to; that the temperature cannot safely be allowed to rise above 105°; and that failing the most certain measure—viz., the cold bath—cold may be applied in various other ways—by the application of ice, by cold affusions, ice-bags, wet sheets, and iced injections.”

The Committee have not in this report entered into theoretical considerations, and have deferred the physiological study of hyperpyrexia till the same condition shall have been investigated in other acute febrile diseases than rheumatic fever. But the report, so far as it goes, is highly creditable to the Committee. It presents an exhaustive summary of our present knowledge of hyperpyrexia in acute rheumatism, and that part of it which deals with treatment is a valuable guide to the practitioner, and will be very welcome.

INDICATIONS OF TREATMENT FROM PARASITIC PATHOLOGY.

BACON's great aphorism, “*Scientia et potentia humana in idem coincidunt*,” has often proved good in the history of medicine, and more particularly in the history of surgery. If all true knowledge tends to establish the supremacy of man in the midst of nature, then the knowledge of the true character of consumption is an unique opportunity. Is there any other among the causes of mortality that can be so truly said to be “the disturber of all great plans, the Nemesis of all great happiness, the standing dire discouragement of human nature?” If knowledge means the power of man over nature, then no knowledge yet acquired has excelled the knowledge that can be turned against consumption. It is the power of man over nature in a literal sense, for, as we are taught to believe, it is his power over co-existent but inferior species of living things. The old and ineradicable instinct of man is to kill his enemies, and that leads us to the Germicide Treatment. Now, the germicide treatment—apart from the local treatment of some skin diseases and the methods of surgical dressing—has hardly as yet passed the stage of the shilling pamphlets written by those pioneering practitioners who keep a standing

advertisement in the daily papers. But the sanctions of science will doubtless make the germicide treatment respectable, and we shall most of us be turning over in our minds, during the next few weeks, the forms that it is likely to take. Wherein will the germicide treatment of consumption differ from the empirical methods already known to us?

In coming to apply the germicide treatment of phthisis, we are reminded as practitioners of a circumstance that we are apt to forget as pathologists, or rather as etiologists. It is, generally speaking, easy to kill rats in a house; the only practical difficulty is that they take the poison and then retire to the recesses of their holes to die, so that they become almost as disagreeable when dead as they were when living. But the trouble arising from micro-organisms left dead in the tissues is too infinitesimal to be dwelt upon; the real contrast with the homely case that we have chosen is that the parasites are not vermin lurking in a house made with hands, but organisms deeply involved in the tissues of a living body. It is far from clear at present that the means which are adequate to kill the parasite may not be more than adequate to kill the patient. Dr. Ehrlich, who has made the latest observations on the bacilli of tubercle, communicates a fact which has, as he says, a bearing upon the kind of disinfectants to be used. The bacillus of tubercle, although it does not differ from other bacilli in its interior substance or as regards its staining properties, is provided with an outer case or shell, which is remarkably impenetrable to a certain class of substances. Strong nitric acid diluted with two parts of water serves to blanch all other matters in the preparation, but it does not penetrate the almost chitinous encasements of the bacilli. Although nitric acid of that strength has no little corrosive power, it by no means follows that there are not substances in nature with a more special toxic affinity for the bacilli, with a more subtle power to pierce between the joints of their armour. But the resistant outer coat of the bacillus is, at any rate, a factor that has to be reckoned with. Next we have to reckon with the favourite seats of the bacilli. They are often in the interior of cells; and in bovine tuberculosis, so far as we know, they are nearly always in the interior of giant-cells. They are, at all events, in the interior of nodules, and of nodules that are to a notorious degree cut off from the blood-supply. Still further, the nodules are apt to be distributed through a wide range of organs and parts, from the brain even to the bones. The dispersion of syphilitic gummata by means of iodide of potassium is perhaps an analogy; but it is an analogy that carries us back to the purest empiricism, and syphilitic gummata are apt to be much less numerous and much more passive than tubercles. The cases of widespread tuberculosis are probably the last that will yield to the germicide treatment; the assault will first be made upon the ordinary and too common cases of consumption—the cases that flock to the Brompton Hospital—the cases of phthisis of the lungs.

Inhalations are the natural vehicle of pulmonary germicides, and inhalations have been already much resorted to in the earlier and ruder times of empiricism. Medicated vapours of various sorts were well known to the practitioners of the last century, and even of an earlier time; coming down to sixty years ago, we find a work published in 1823 by Crichton, "On the Treatment and Cure of Pulmonary Consumption, and on the Effects, in that Disease, of the Vapour of Boiling Tar"—a disinfectant vapour. It may be that we shall return to those practices, now that they have ceased to be empirical; and it may be that faith in their soundness will procure for them a more patient trial, and lead to a more appreciable success. We have already mentioned the indication of treatment derived from the

observations of Ehrlich; no disinfectant with an acid reaction—a sweeping exclusion—need be tried, inasmuch as the outer coat of the bacillus is impenetrable to even strong acids. Alkaline disinfectants are of most promise; but, when we call to mind all the circumstances of the bacilli in the tissues, we should not be too sanguine. It is not always an easy matter to eradicate the relatively large and relatively accessible fungi of tinea or pityriasis, and the bacilli of tubercle are many times more subtle, and infinitely more closely identified with the very life of the tissues. It looks as if it might be easier to destroy the delicate living mechanisms of the patient than to destroy the crass vitality of the parasite. If there are such limitations imposed upon the germicide treatment, they are grievous to all alike, whatever our various pathological leanings may be; but, to those who see so much in the tubercular bacillus, the fact of there being such limitations may perhaps serve as a gentle reminder that the living activities of the body must also be reckoned with in the etiological theory and in the therapeutical practice. The parasitologists have been somewhat too apt to leave out of account the reactions and predispositions of the body or of the living tissues; they have essayed to reach the external causes of disease without giving heed to the usual nosological considerations. But in the hour of treatment it is impossible not to think of the seats as well as the causes of maladies.

The most useful indications from parasitology will doubtless be in the way of prophylaxis. Dr. Koch has indeed already directed attention to the dangers arising from dried phthisical sputa becoming mixed with the dust of the air, and he has suggested that the expectorations of the phthisical should be summarily reduced to an innocuous condition. Here also the inevitable empiricism has forestalled the conclusions of science; it has been an immemorial practice in Italy to disinfect everything in a house where a consumptive has died, and even to destroy articles that have presumably been contaminated. Relatives who accompany those unfortunate patients in search of health have occasion to know the Italian practice, and they have been apt hitherto to set it down as a meaningless and costly superstition. The only other practical suggestion that has arisen out of the parasitic theory of tuberculosis is that we should look after our milk supply, lest the milk of tuberculous cows should be mixed therewith. Various facts and arguments bearing on that danger had been plied for some time before the bacillar theory came out; and it is not easy to see why the presence of bacilli in the milk—if, indeed, they *are* present in the milk—coming from a tuberculous cow, should serve to bring home to the hearts and minds of men a danger that they did not appreciate on the strength of considerations less microscopic. But such effect the bacillar discovery seems, at any rate, to have had, directly or indirectly. A question in the House of Commons, on the 23rd ult., put by the Vice-President of the Council in the last Administration to the present Vice-President, elicited the fact that a Bill will shortly be introduced which will have an effect equivalent to making bovine tuberculosis a "disease" for the purposes of paragraph 8 of the Dairies, Cowsheds, and Milkshops Order of July, 1879, and will transfer the executive to the Local Government Board. Truly the springs of human action are strange! The latest development of the tubercle question is not a better ground for legislative interference than the previously existing arguments, and in strict logic it is perhaps not even so good. But we are, at any rate, glad that the matter has at length come within the range of practical politics. If the recent explosion of opinion has done that much for a serious but neglected affair, we shall not scrutinise too closely the illogical process by which the end has been attained.

ENGLISH PHARMACY AND PHARMACISTS.

When referring to the annual meeting of the Pharmaceutical Society we promised to return to a subject which is not devoid of interest to ourselves or to our pharmaceutical brethren. For what struck us most of all at that time was the vast improvement in what we might term the *personnel* of the Pharmaceutical Society since that body obtained its charter, now a good many years ago. Undoubtedly there were then, as now, in the body men of high learning and culture, but these attainments were by no means so widely spread as they are now, and, consequently, the personal characteristics which such acquirements undoubtedly carry with them were then more conspicuously absent than present. Undoubtedly, therefore, as it seems to us, the status which has been conferred on pharmacists, and the power which they now possess of enforcing a proper education on all who would become members of their body, have not been without their effects in elevating the standing of their order.

Unfortunately, all these things cost money, and, as usual, this ultimately must come from the public. The drug trade may be said to be now a monopoly far more rigid than is that of the medical profession, for anyone may give advice to him that seeketh it, but pains and penalties may be enforced against a man, not a registered chemist, who dispenses certain articles of the Pharmacopœia. The result of such monopolies is invariable: where there is no competition, or where no competition is permitted, prices rise. Nor are we at all inclined to find fault with the pharmaceutical body that this should be so, only we would strenuously advise them to study moderation, or they may bring about a condition of things which, to them at least, would be most undesirable. We cannot expect that men who have had to spend much time and much money on their education should be content with the slight profits which sufficed when all that was required was an apprenticeship. But it is well to bear in mind that there are clearly two ways in which the regular pharmaceutical business may be interfered with and its profits lessened; and that there is a third which is looming in the distance, if it is not already active among us.

The first and most legitimate of these antagonistic elements arises from competition with the medical profession. We have been glad to observe that year by year the open shop kind of surgery has been diminishing in point of numbers, except in districts where life would hardly be possible to a medical man without such an appendage. But if the open shop, where anything may be purchased—say from a ha'p'orth of sweets to a penn'orth of hair-oil,—is on the decline, we question whether the system of private dispensing has been in the slightest degree affected by the Pharmacy Act. Many patients cannot afford to pay for advice and then pay for medicine too. They find it at once more convenient and cheaper to pay for advice and medicine together, instead of being mulcted of a double profit. And it must be confessed that many medical men have a certain dread of sending out a prescription to a second-rate chemist, which is not altogether unwarranted by experience. But there is another class whom both practitioners and chemists have alike to fear, and for whose success the lower grade of pharmaceutical chemists is largely responsible; that is the privateer of the provident dispensary type, where advice and medicines may apparently be had for something less than nothing. From the first we pointed out how apt this "provident" system was to be abused, and we have ever raised our voice against the system of counter prescribing by chemists; but it must be said that the chemists began the game long before provident dispensaries were heard of. We well remember, many years ago, going into a respectable-looking chemist's shop for a

bottle of soda-water, and politely asking how business was. "Oh," said my lord, "I don't care for the drug trade, I chiefly lay myself out for consulting practice." Is it wonderful, then, that a certain type of qualified medical men should emulate their pharmaceutical brethren, by offering advice and medicine at a nominal rate; or that many men should continue to dispense their own medicines, rather than send prescriptions to such shops, where the drugs are nearly always of an inferior kind, and where often one ingredient is substituted for another should the dispenser not happen to have the right one handy? We can give a notable example of this which came under our notice some time ago. A particular drug was wanted, and a servant was sent for it to the chemist's. She did not speedily return, and when she did she said she had been detained, as the chemist had to prepare the drug. We well knew no such preparation was required—that if the drug was there at all it was ready for consumption; if not, that it could not be manufactured on the spot. And so it turned out, for the prepared stuff was horribly nauseous, and as unlike the article required as could be. What, therefore, between high prices when good drugs and skilful handling are to be had, and wretched materials, trickery, and interference in the lower grades of the pharmaceutical calling, the ordinary medical practitioner meantime does well to help himself. As for the higher grade in our profession, its members are often so unskilful in pharmacy as to be abjectly dependent on the pharmacist for the interpretation and rectification of their prescriptions, and are only too glad to find themselves in contact with a class of men who can readily supply the knowledge they lack.

But though the first-class West-end chemist is not exposed to the kind of competition we have noted, their position is not altogether beyond assault, or even of being turned. They have a new foe to deal with who has already routed more than one time-honoured monopoly. No one can pass along Victoria-street in the afternoon without noting the immense numbers of carriages standing by the Army and Navy Stores, the people on foot, and the people in 'buses, till the whole place swarms with life. And let anyone reflect on the vast turnover of money which all this represents; let him, moreover, think that the drug department is one of the most popular among the many which go to make up the establishment; that the drugs are good, well dispensed, and moderate in price,—and he will see the most formidable opponent which has yet arisen to the West-end chemist. We only cite the Army and Navy as giving the best example of what we mean by this new form of competition, for the same thing is going on elsewhere to an almost unlimited extent, only here we see it in its greatest activity. We should say that a very large proportion of the prescriptions written by West-end physicians are now made up in one or other of these establishments.

The third form of opposition to the regular pharmaceutical chemist is still in embryo in this part of the country, though it has long been known in Scotland, where private dispensing is the exception. This consists in ordinary medicines in a concentrated form, so that a few drops or a teaspoonful at most may take the place of the regulation half-ounce or ounce. The introduction of the American system of powerful remedies in small grains or pilules is decidedly helping things on the way, for when a man can carry with him in his waistcoat-pocket a concentrated remedy, he is little likely to be constantly running to the chemist for a fresh bottle of that which he supposes at least is doing him good. The small-dose system has, we are told, been fairly well countered by the chemists, who now in many instances, at least, charge by the dose, great or small, numerous or scanty in number; but it is quite clear that this plan will not suit the pockets of everyone,

and it is likely to produce discontent. We refrain from noticing here the exceeding great danger of ordering such concentrated medicines when they are of a powerful kind. Thus we heard the other day of a four-ounce mixture containing two drachms and a half of hydrocyanic acid. Here a slight mistake in the dose might have been followed by serious consequences. Where medicines of such strength are needed or desired, it is far safer to prescribe and dispense them in the old-fashioned form of draughts, or to use a poison-bottle labelled "poison," though this, we fear, would be apt to slay the goose that lays the golden eggs.

Thus we see that, great as has been the improvement in the position and standing of the pharmaceutical chemist, his situation is still one that demands judgment and caution.

THE WEEK.

TOPICS OF THE DAY.

THE prizes awarded to the students at the Charing-cross Hospital Medical School, during the summer session of 1881 and the winter session of 1881-82, were last week distributed by the Duchess of Edinburgh, who was accompanied by the Duke, in the handsome and convenient school buildings, lately erected, on the north side of Chandos-street. In the unavoidable absence, through ill-health, of the Dean, Mr. F. Hird, Dr. Pollock read the report of the year, in which, after reference to the advantages enjoyed by the medical school since its removal to new quarters, the number of entries of new students was stated to have been forty in 1879, fifty-five in 1880, and sixty-two in 1881. At the conclusion of the ceremony of presenting the prizes, their Royal Highnesses proceeded to inspect the Hospital, and were received and conducted through the wards by Sir Joseph Fayrer, the Hon. A. F. Kinnaid, Dr. Pollock, and other members of the staff. The occasion was utilised for adding to the Hospital funds. In the board-room the ceremony of presenting purses to the Duchess was carried out, and by this means a sum of £280 was realised. In acknowledging a resolution thanking their Royal Highnesses for their presence on the occasion, the Duke expressed his approval of the arrangements of the Hospital, and the pleasure which it had given the Duchess and himself to be present. He spoke also of the regret with which he had heard, whilst presiding at the dinner recently given on behalf of the charity, that thirty beds were unused owing to the want of funds, and he announced that he and the Duchess would undertake the maintenance of one of these.

Our contemporary the *Globe*, in commenting on the new feature of taxation in the Budget for the year, says:—"The doctor's 'pill-box,' as it is irreverently called, is not to escape the new increase in the carriage duty. Public sympathy will certainly be with a class who are, in many rural districts at least, both hard worked and badly remunerated. Club patients, for instance, often live long distances from the doctor's home, and four shillings a year does not leave much margin for additional taxation." Our contemporary further expresses an opinion that bicycles and tricycles will now be more extensively used by the young and active members of the profession. Could not some one suggest to Mr. Gladstone that to shift the proposed increase of tax on carriages to these lately introduced vehicles, supposing they do not already pay tax as two-wheeled carriages, would be an extremely popular measure?

A meeting was recently held at Willis's Rooms, under the presidency of the Earl of Shaftesbury, on behalf of the seaside branch of the Metropolitan Convalescent Institution at Bexhill, near St. Leonards. In opening the proceedings,

the chairman said the question of convalescent homes was a vital one for future generations, because by sending a sick child to one it plucked out the seeds of future disease. The condition of a large mass of the London working population was far worse than it was before the great embellishments of London were projected; so that convalescent homes were essential to the health of those discharged from our great hospitals. The meeting passed in due form resolutions that "the establishment of convalescent homes, of which the Metropolitan is the pioneer, has met a great and pressing need, and conferred immense benefits on the sick poor, by bridging over the interval between hospital treatment and restoration to health; and that the maintenance and extension of the movement is deserving of every encouragement"; and "That the Bexhill Seaside Convalescent Home, founded by the munificence of a private individual, is calculated to prove of the greatest value in providing for those special cases in which sea-air is indispensable to recovery, and that the special appeal for funds to carry out the object of the benevolent founder by the completion of the building calls for the hearty support of all those interested in alleviating the wants of the sick poor." Donations to the amount of £791 were announced before the meeting separated.

The Strand Board of Works having established a chamber for disinfecting the clothing of diseased persons, in Denzell-street, the centre of a populous district, and near to several schools, the London School Board have felt it necessary to apply to the Chancery Division of the High Court of Justice for an injunction to restrain such a use of the premises in question, and produced affidavits from high medical authorities to the effect that the arrangement was full of danger to the health of the people. It was ultimately arranged that the matter should stand over until after the Whitsuntide recess, the defendants undertaking, meanwhile, to take steps with the view of diminishing the danger.

At a late meeting of the Council of the Society for the Reform of Slaughter-houses, the President, Dr. Richardson, F.R.S., in the chair, a draft report on the inspection of public and private slaughter-houses in London and the provinces, by Messrs. F. Talfourd Chater and H. F. Lester, was submitted, and it was eventually decided to call a public meeting of the Society to receive the report. The name of the Right Hon. W. E. Forster was added to the list of patrons, and a communication was read from Mr. Kennett, of Petersfield, intimating that he would give two hundred guineas to the Society towards the construction of a model *abattoir*, if, in the course of two months, four other persons would contribute a like amount.

Recent irregularities in the matter of pauper interments have resulted in the issue of a circular by the Local Government Board, in which the attention of authorities is called to the defective nature of existing arrangements for the burial of persons dying in workhouses. The circular letter, a *resumé* of which we give elsewhere, suggests the arrangements and precautions that seem best calculated to provide against a recurrence of such scandals.

In January last, it will be remembered, a meeting was held under the auspices of the Hospital Saturday Fund Committee, presided over by Mr. Samuel Morley, at which it was resolved that an attempt should be made to establish a convalescent home for working-men only. It is now stated that such an appeal has recently been made, with the result that about £300 has been subscribed towards the maintenance of a house of this description. At the same time, it has been proved, by the number of promises given in the direction of annual support, and by the expressed intention of the promoters to charge each patient a small weekly sum while in the house, that the institution, once established, will be self-

supporting. It is, however, still necessary to raise a sum of £400 to defray the preliminary expenses and furnish the home, and the promoters have made an appeal to the public to contribute this sum. It is not necessary to follow Mr. Morley through the reasons he advances why this movement should receive general support—no doubt the funds required will be forthcoming,—but two points require notice. In the first place, considering that the home is to be for working-men only, the sum of £300 collected from that class, in a capital like London, is paltry in the extreme; and, secondly, the weekly charge to be levied upon each patient is likely to shut out the advantages of the establishment from the very people to whom it would prove the greatest boon. The working-man's idea of self-help seems to be to get others to help him.

Thomas Aiken Smyth, aged thirty-six, described as a medical student, was recently tried at the Central Criminal Court for the manslaughter of the Rev. Matthew Campbell. The case, which has already been reported at some length, arose out of the highly objectionable practice, now unfortunately too common, of unqualified persons opening dispensaries and pretending to be duly authorised to practise. In the present instance Smyth had represented himself as a Doctor of Medicine of Ireland, and as being on the staff of St. Thomas's Hospital. His counsel endeavoured to show that up to a certain point the deceased had been properly treated, and that his client had been deceived as to the real cause of the symptoms, so that he had not been guilty of gross criminal ignorance and negligence, as was alleged on the part of the prosecution. The jury, however, found him guilty, and Mr. Justice Manisty, in passing sentence, said the offence must be considered as a very serious one, and he wished the case to be a warning to others not to profess to be what they were not. He sentenced the prisoner to be kept to hard labour for six months.

Last week, Mr. Angel Money, M.B., from the Great Ormond-street Hospital for Children, appeared at Bow-street Police-court to a summons charging him with having dissected the body of a child who died in the Hospital, this being done without the knowledge of the parents. From the accounts which were published when the case was first heard, it appeared that the mother left her child at the Hospital in the morning, alleging that she was not able to wait until the medical officer was disengaged, and that it died in the middle of the day. The fact of there being no one there to claim the body, presumably led to the performance of the post-mortem examination without the consent of the relatives. Mr. Besley, who appeared in support of the summons, said the object of the Vigilance Association, by whom the proceedings were taken, was to ascertain the legality, or otherwise, of hospital authorities dissecting bodies without the consent of relatives. Eventually, Mr. Flowers, the magistrate, postponed his decision for a few days.

THE ROYAL COLLEGE OF PHYSICIANS.

At an extraordinary meeting of the Royal College of Physicians, held on Tuesday last, the President drew the attention of the College to some advertisements of medical works which had recently appeared in newspapers. He added that, feeling it to be part of his duty to watch over the honour, even more than over the interests, of the College, he could not but express his strong disapproval of the practice of advertising medical works in non-medical journals, and of the custom, now too prevalent, of giving certificates commendatory of preparations either medicinal or alimentary—certificates which were generally used for trade purposes, often contrary to the wish or intention of those who gave them. This opinion, he said, was entirely in accord with

that formerly entertained by the Fellows of the College, who, at a general meeting of the College in June, 1873, had passed the resolution—"That the practice of medical authors frequently advertising their own works in the non-medical journals, and especially with the addition of laudatory extracts from reviews, is not only derogatory to the authors themselves, but is also injurious to the higher interests of the profession;" and a copy of this resolution was then sent to every Fellow and Member of the College. After the President had spoken, the Senior Censor gave notice that at the next meeting of the College he would move—"That the system of extensively advertising medical works in non-medical journals, and the custom of giving laudatory certificates of medicinal and other preparations, whether for publication or not, is misleading to the public, derogatory to the dignity of the profession, and contrary to the traditions and resolutions of the Royal College of Physicians."

The following Members of the College were elected Fellows:—Dr. James Alexander Grant, of Ottawa, Canada, who became a Member in 1864; and Dr. Henry Blanc, of Bombay, India, who became a Member in 1874.

The Murchison Scholarship was formally presented to Mr. Charles F. Coxall. Thanks were voted to Sir William Mac Cormac for a number of photographs of the statue of Harvey, lately erected at Folkestone. The report presented to the College by the Committee appointed to consider the report of the Visitors of the Examinations was discussed, and the following resolution was adopted:—"The College acknowledges the receipt of the Visitors' report, and desires to say that it will continue, as it has hitherto, to use every means at its command for securing the completeness and efficiency of its examinations, in both their scientific and practical aspects." The report of the Committee was then referred to the Council of the College. Dr. Quain gave notice of his intention to propose the following regulation at the next meeting of the College:—"That the Council, on presenting the list of Members nominated for election by the College to the Fellowship, shall briefly state the grounds on which, in each case, the Member is proposed for election as a Fellow."

L'ACADÉMIE DE MÉDECINE.

For the vacancy in the Section of Anatomy and Physiology, caused by the death of M. Moreau, the Section presented the list of candidates in the following order:—MM. Mathias Duval, Charles Richet, Laborde, and Farabeuf. Of the seventy-six academicians present, M. Duval received the votes of fifty, and was consequently elected.

THE APPEAL AGAINST THE CHARGES OF THE WATERWORKS COMPANIES.

JUDGMENT was given on May 26 in the Queen's Bench Division of the High Court of Justice, in the appeal case of *Dobbs v. The Grand Junction Waterworks Company*. The question raised was as to the principle upon which the respondents are entitled to charge the appellant for two quarters' supply of water to his dwelling-house, and which charge was based upon an annual value of £140, the appellant's contention being that he was liable to be charged on no greater annual value than £118. The former sum was the "gross estimated rental," whilst the latter was the "net annual value" of the premises, as stated in the poor-rate assessment of the appellant which was in force at the time of the supply. In delivering judgment for himself and Mr. Justice Bowen, Mr. Justice Field went into the case at considerable length. The appellant's contention, he said, was founded upon what he (the appellant) alleged to be the true construction of Section 27 of the Act 7 Geo. IV., c. 140, but this was met by the contention of the respondents

that the whole of that Section was repealed by Section 46 of the subsequent Act, and that it was by that Act alone that the water rates were governed. His lordship proceeded to analyse the merits of the different contentions, and concluded by explaining that, in the opinion of the Court, the Legislature intended to apply to the charge for supply of so universally necessary an article as water, by a privileged body, an already ascertained standard easily to be referred to, and upon which the Company could act, and that that standard is to be found either in a *bonâ fide* contract for rent (where that exists) or in a "net rateable value," which is the actual basis of chargeability, rather than in gross estimated rental, which is only a step in the calculation. For these reasons their lordships concluded that the magistrate's order could not be supported; and the order made by the Court was that the annual value of the appellant's dwelling-house be taken to be £118, the sum upon which the assessment to the poor-rate is computed, and that the appeal be allowed. As a matter of course, the respondents' counsel asked leave to appeal against this decision, and, in granting this, Mr. Justice Field allowed that the question was a very important one, and no doubt admitted of much argument on both sides. Considering the interests the water companies have at stake, it is certain that we have by no means heard the last of this question; and we can only hope that Mr. Dobbs will eventually succeed in establishing his case, which he has gallantly fought, partly, at the least, in the interest of the general public.

COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual election of Fellows into the Council of the Royal College of Surgeons will take place, as usual, on the first Thursday in the ensuing month (July 6), all the Fellows in the United Kingdom whose addresses are known at the College having received a notice to that effect. The following are the retiring members of the Council who will offer themselves for re-election, viz.:—Mr. Alfred Baker, Birmingham, of the Birmingham General Hospital; Mr. John Marshall, F.R.S., Vice-President of the College, of University College Hospital; and Mr. Henry Power, Chairman of the Board of Examiners, of St. Bartholomew's Hospital. We understand that Mr. John Croft, of St. Thomas's Hospital, a member of the Court of Examiners, who so nearly obtained his seat on the Council last year, will again offer himself to the Fellows.

THE PARIS WEEKLY RETURN.

THE number of deaths for the twentieth week of 1882, terminating May 18, was 911 (461 males and 450 females), and among these there were from typhoid fever 33, small-pox 19, measles 22, scarlatina 5, pertussis 4, diphtheria and croup 51, erysipelas 5, and puerperal infections 5. There were also 47 deaths from tubercular and acute meningitis, 161 from phthisis, 24 from acute bronchitis, 77 from pneumonia, 60 from infantile athrepsia (24 of the infants having been wholly or partially suckled), and 28 violent deaths (23 males and 5 females). This return is imperfect, as, owing to its being a public holiday, Ascension Day has been omitted. Still, as in fact the deaths have descended from 26.50 per 1000 individuals during the nineteenth week to 24.67 per 1000 for the six days of the twentieth week, the amelioration has been very considerable. But the admissions into the hospitals of cases of typhoid and small-pox have somewhat increased. "The mortality (51) from diphtheria, although somewhat diminished, still remains very high, when we consider how restricted is the group of the population that has almost exclusively furnished it. But we may remark that the constantly increasing number of deaths

from this disease is not observed solely amidst the Parisian population. Thus, in Berlin, with a population of 1,162,473, there were 44 deaths from this cause; in St. Petersburg, with a population of 669,741, 30 deaths; and in New York, with a population of 1,270,324, 64 deaths. London, it is true, with its population of 3,893,272, has only furnished 34 cases; but the infant population of that city has paid its tribute with 125 cases of pertussis, a disease with us so seldom fatal." [The same might be said of the comparison of deaths from scarlatina in the two capitals.] The births amounted to 952, viz., 484 males (358 legitimate and 126 illegitimate) and 468 females (336 legitimate and 132 illegitimate): 87 infants were either born dead or died within twenty-four hours, viz., 47 males (35 legitimate and 12 illegitimate) and 40 females (25 legitimate and 15 illegitimate).

THE WATER-SUPPLY OF ST. ANN'S CHAPEL, TAVISTOCK.

THE ratepayers of the locality of St. Ann's Chapel, in the rural sanitary district of Tavistock, some while ago were moved to memorialise the Local Government Board, setting forth the great inconvenience to which they were subjected from having to fetch their drinking-water from a considerable distance; and further, that the said water, when obtained, was often polluted by cattle and unfit for drinking purposes; and that the sanitary authority had refused to comply with a request that the village be supplied with wholesome water, although this was obtainable at a reasonable cost. Dr. Blaxall was consequently despatched by the Local Government Board to institute an inquiry. He found that the water-supply of St. Ann's as it issues from the adits is apparently of a wholesome character, but that during its course to the village it is exposed to fouling by cattle, ducks, etc., and at places by road-washings, by occasional human excrement, and at times by the washings of the entrails of slaughtered pigs. The testimony of a large number of the inhabitants was to the effect that in summer they were obliged to fetch their water either very early in the morning or late at night, or it would be so muddied and thick as to be unfit for use; cattle-dung was sometimes observed floating on the surface, and the water, after being allowed to stand a time, would have a thick scum upon it. In 1874 the medical officer of health attributed an outbreak of diarrhoea at Albaston, a village a short distance below St. Ann's Chapel, to the drinking of impure water derived from this leat; and again, the present medical officer of health, in November, 1879, referred the occurrence of diphtheria, following cases of typhoid fever in the locality, to the same cause. Dr. Blaxall reports that the inhabitants of St. Ann's Chapel have just ground for their complaints, as regards both the distance and the impurity of their water-supply. Further, that it is an urgent necessity that this village, and also Albaston (which has made no complaint), should be supplied with wholesome water.

THE DISCUSSION UPON SCLEROTOMY AT THE OPHTHALMOLOGICAL SOCIETY.

AN extra meeting of the Ophthalmological Society of the United Kingdom is to be held on Thursday next, June 8, for a discussion upon sclerotomy. At the last meeting of the Society, the President, Mr. Bowman, announced that it had been decided to afford the opportunity of discussing this subject; and he suggested that those who desire to take part in it should confine their observations to certain definite issues, as—1. The methods and forms of the operation of sclerotomy, remembering that quite different operations have been described under the title of sclerotomy, and that therefore the form of operation any speaker may refer to should be carefully specified; 2. The *rationale*, or *modus*

operandi, of the operation; 3. The forms, stages, and complications of glaucoma in which the operation, or any form of it, is desirable. The meeting will open with papers on sclerotomy by Mr. Higgins, Mr. Spencer Watson, Mr. Bader, and Mr. J. B. Story (Dublin). Mr. Critchett, Mr. Power, Mr. J. E. Adams, Mr. Brudenell Carter, and others are expected to speak. If desirable, it will be proposed to adjourn the discussion to the following day (the 9th) at the same hour, 8.30 p.m. Living specimens will attend, as usual, half an hour before the meeting commences.

A PURE WATER-SUPPLY *v.* THE PREVALENCE OF CHOLERA.

We learn from our contemporary the *Indian Medical Gazette* that Dr. M. C. Furnell, Sanitary Commissioner for Madras, lately delivered an address on "Water, and its Effects on Health," in the course of which he brought forward the following testimony to the influence that a supply of pure water to the town of Madras has exercised in diminishing the prevalence of cholera:—"Years ago, when cholera visited Southern India, Madras was one of its favourite halting-places. It numbered here its victims by thousands. This year, although it was the second place in point of time visited, it found its old quarters not so congenial, and it passed on to other places. It came again and again—the traffic with Madras from surrounding towns is, of course, so great,—but it never took firm root; and the reason, I take it, is this: the people, at least the mass of the people, do not now drink ordinary tank water, but use Red Hills water; and this is so laid on that although I often see men washing themselves at the taps, the water cannot run back again and contaminate the supply." The experience of Calcutta, our contemporary adds, coincides with that of Madras on this point in a very remarkable manner.

REPORT ON AN OUTBREAK OF SMALL-POX AMONG RAG-SORTERS AT THE ST. MARY CRAY PAPER MILLS.

IN April, 1881, a sudden and extensive outbreak of small-pox occurred in the neighbourhood of St. Mary Cray among women employed as rag-cutters at Messrs. Joynson and Son's paper-mills at that place. A report by Dr. Baylis, Medical Officer of Health for the West Kent District, indicated the probable source of infection to be in the rags in process of manufacture at the mill. Dr. Parsons was accordingly instructed by the Local Government Board to institute an inquiry, with a view especially to ascertain whether any precautions could be taken to prevent the spread of infection by means of rags. Want of space will not admit of our following Dr. Parsons through a description of the steps taken by him to ascertain the true source of the outbreak; suffice it to say that the inquiry was a thoroughly exhaustive one. Dr. Parsons ascertained beyond doubt that any infection existing in the rags must be communicated in the earlier process of paper-making, and before they are delivered for boiling with a strong caustic alkali. In the present instance no cases of small-pox were known to have occurred amongst the workpeople at Messrs. Joynson's until the middle of April, 1881, when a number of people engaged in the rag-house were taken ill within a few days of each other, and there was no concurrent outbreak in the vicinity among persons unconnected with the mill. The bulk of the cases occurred from April 9 to 20; and as the period of incubation in small-pox is generally placed at about fourteen days, it followed that the later cases could not have contracted infection from the first case, and that the attacks must have been due to a cause or causes acting simultaneously or nearly so. The fact of almost the whole of the patients having worked in the rag-house also showed that the source of infection was in that particular room. From further inquiry it was

found that some complaint had been made, about that time, by the workers regarding a particular sample of foreign rags, which was reported to be of a dirty and offensive character, containing poultices, bandages, and a stocking fouled with human excrement; and the inference made was that these articles were the refuse of a small-pox hospital. On examination, however, it was shown that the rags in question came from Trieste, had been in stock twelve months, and had been in cutting, on and off, for nine months before the outbreak. The manager said they were not more foul than English rags of the same sort; but the workers have a prejudice against these foreign rags as they are dry and dusty, and less readily cut than English rags, so that less money is earned when working upon them. It must be remembered also, Dr. Parsons adds, that poultices and bandages are not applications of common use in small-pox hospitals; that surgical cases for which they might be supposed to be used are not treated in small-pox hospitals; and that in all well-regulated small-pox hospitals infected rags are either burnt or thoroughly disinfected before being disposed of. Of the cutters attacked at this outbreak, only four had cut any of the foreign rags within fourteen days before leaving sick. The other rags in use at the same time had been collected at London, Bristol, and other places at home; and the manager stated that they had had large quantities of rags from London, where small-pox had been for some time prevalent, and their stock being low, these had come into use unusually quickly. If, therefore, the rags were to be regarded as the source of infection, the weight of suspicion was against the home rather than against the foreign supply. As regards the mode of reception of the infection, the report remarks that it was probably communicated by the inhalation of infectious dust, dry small-pox matter being little likely to be absorbed by the uninjured skin. Dr. Bristowe, in his report on the rag-trade in relation to infectious disease, after visiting eighty-six paper-mills in different parts of England, arrived at the conclusion that small-pox and other infectious diseases were very rarely introduced into paper-mills by rags, but at the same time he admitted that their introduction was possible, and occasionally did take place. During the progress of the present inquiry the Local Board received information of outbreaks of small-pox, similar in character, at a paper-mill at Maidstone, and also at four other places where persons working on rags had been attacked with the disease, the surrounding districts being at the time free from the complaint. All the cases thus reported agree with the opinion of Dr. Bristowe that small-pox is the form of infectious disease most likely to be carried by rags. The report next proceeds to consider the precautions which should be taken to do away with risk in the handling of rags, and also whether extra measures should be applied to foreign imports of them, and if such measures should be made compulsory. The final conclusions at which Dr. Parsons arrived are as follows:—1. That cases of infection by means of rags do occasionally occur, although, comparatively speaking, not very frequently. 2. That small-pox is the disease most likely to be thus conveyed. 3. That all rag-workers should be vaccinated and revaccinated. 4. That dust should be avoided. The preliminary dusting of the rags before sorting is to be recommended, but the dust should not be allowed to contaminate the air of the workroom. 5. That certain measures of disinfection are available, such as exposure to air, fumigation with sulphurous acid, and exposure to high-pressure steam. 6. That in the absence of means by which it may be known whether or not rags have been infected, the cases in which disinfection would appear especially desirable are those of rags from places where epidemics are known to exist, and of rags in a filthy state, and foreign rags, especially if coming within the two previous categories. 7. That under existing circumstances it is not advisable that any obligation as to the disinfection of rags, other than that already imposed by Section 126 of the Public Health Act, 1875, should be imposed upon persons engaged in the rag trade.

HONOURS EASILY EARNED.—At its public sitting on May 11, the Société Nationale d'Encouragement properly decreed a medal of honour and a diploma each to MM. Lassegue and Bataillard, medical students, for having furnished the blood required for a transfusion recently practised at the Cochin Hospital.—*Union Méd.*, May 27.

ABSTRACT OF

REPORT OF A COMMITTEE OF THE
CLINICAL SOCIETY UPON HYPERPYREXIA
IN ACUTE RHEUMATISM.(a)*Presented to the Society on May 26th, 1882.*

AFTER a few introductory remarks pointing out the necessity for limiting the present report to an analysis of cases, 67 in number, collected from various sources and mostly unpublished, the report states that the cases occurred mainly in the ten years ending 1879, and that the following division was made in analysing them:—

CLASS I.—Cases of undoubted hyperpyrexia, with an elevation of temperature to 106° and above. Under this class 47 cases are included.

CLASS II.—Cases showing a marked tendency to high range of temperature—viz., 104°, continued and persistent. Under this class 17 cases are included.

CLASS III.—Cases with the symptoms well marked, characterising usually the hyperpyrexial cases, but without marked excess in temperature. Under this class 3 cases are included.

The Committee have investigated these cases—1st. By comparison with ordinary cases of acute rheumatism, in order to learn if cases which exhibit hyperpyrexia present any other clinical differences; 2nd. By a more precise analysis of cases of hyperpyrexia and their treatment; and, lastly, they bring forward the general conclusions to which this inquiry led them.

Comparison of Hyperpyrexial Cases with those of Acute Rheumatism generally.—The first point to be considered is, whether, apart from the phenomenon of hyperpyrexia or of symptoms directly related to it, these cases exhibited any notable features of difference from the generality of cases of rheumatic fever; whether, that is, they differed in any way as to their etiology, course, complication, or issue from the latter. A statistical comparison has therefore been made by utilising the returns of 1300 cases of acute and subacute rheumatism contained in the Registrars' reports of the Middlesex Hospital for the years corresponding to those in which the hyperpyrexial cases mainly occurred. This number may be considered to afford a sufficiently wide basis of comparison; it includes 22 cases of hyperpyrexia.

The comparison was made under the following heads:—(a) Time of occurrence—season of year; (b) Sex; (c) Age; (d) Occupation; (e) Existence of family tendency to rheumatism; (f) The number of the attack for which the patient came under treatment; (g) Complications; (h) Mortality.

Time of Occurrence.—Of 65 cases of rheumatic hyperpyrexia occurring between the years 1869 to 1880, no fewer than 53 cases, or 81·5 per cent., were in the five years 1873 to 1877. During the same period the annual number of rheumatic fever cases in the Middlesex Hospital was above the estimated average. So that, apparently, excess in hyperpyrexia corresponded with excess in prevalence of rheumatism, although by no means in proportion. It is also shown that during the decade 1870-79, the greatest prevalence of rheumatism was in the autumn and winter months—of hyperpyrexia in the spring and summer.

Sex.—Whilst the proportion of males to females in the series of 1300 cases of rheumatic fever was fairly equal, in the cases of hyperpyrexia there is a marked preponderance of males—viz., 64·2 per cent. of the total number collected.

Age.—There is less departure from the general rule with regard to age, for in each series the number is largest in the third decade of life.

Occupation.—No special occupation apparently predisposes to hyperpyrexia, there being in the 67 cases no fewer than thirty-three different occupations represented—some sedentary, others active.

Family History.—There does not appear to be an undue tendency to rheumatism in those in whom hyperpyrexia appears.

Number of Attack.—So far as the records go, the large majority of the hyperpyrexial cases were instances of primary attack of rheumatism, viz., 67 per cent. In the general series of rheumatic fever there were 52 per cent. first attacks. It is also shown that hyperpyrexia was not present in any attack after the third.

Complications.—Nine out of the 67 cases were uncomplicated, and 6 of these were fatal. Pericarditis was far more frequent than the average; endocarditis almost as frequent as in rheumatic fever generally. Pleurisy and pneumonia were rather frequent complications of the hyperpyrexial cases. It is pointed out that according to the statistics of the Middlesex Hospital, the number of cases of rheumatic pericarditis has notably diminished of late years; and if this be found to be the general experience, it is a most interesting fact, when the similar decrease in cases of hyperpyrexia is also borne in mind.

Mortality.—Almost one-half of the total number of hyperpyrexial cases died, viz., 33. Complications were more frequent in the cases of recovery than in the fatal cases. The death-rate of acute rheumatism, exclusive of cases of hyperpyrexia, was only 1·8 per cent.

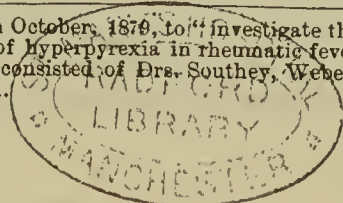
The second part of the report deals with the subject of hyperpyrexia in acute rheumatism as illustrated in the series of 67 cases under consideration. No special determining influence of the hyperpyrexia is to be found in the previous history or habits of the patients. Chorea and scarlet fever were very infrequent antecedents, and alcoholic intemperance was by no means a marked feature. The next point considered is whether the attack of acute rheumatism in which the phenomenon arose showed any striking departure from the usual type in other respects, and the views currently held that the onset of this symptom is often preceded by the abrupt subsidence of articular pain, the cessation of sweating, and the appearance of nervous symptoms, were tested by an analysis of these cases.

Joint Affection.—In 22 cases, or in about one-third, the records dealt with gave no information upon the question whether the articular pains did or did not subside before the onset of the hyperpyrexia. Of the remainder—45 cases—the notes point to the persistence of pains, either continued or variable, in no fewer than 20 cases. In 25 cases the pains subsided before the onset of the hyperpyrexia, to return in 14 of the cases after this condition had passed away.

Condition of Skin.—The notes of the cases give no information as to the cutaneous condition during the continuance of hyperpyrexia in 14 out of the 67 cases. Of the remainder, sweating is noted in 40 cases, with sudamina in 22; in 1 case the skin is noted as "moist," and in only 12 is it distinctly stated to be "dry." These results are not, therefore, in accordance with the general impression that a dry, unspiring skin is an invariable concomitant of rheumatic hyperpyrexia—such a condition of skin being present in not much more than one-fourth of the cases.

Nervous Symptoms.—These are very numerous and varied, although it may not be that the present series of cases has added many to the list of those already known and described. Those that are noticed in this series include, according to their frequency, the following—delirium (in all phases), insomnia, restlessness, muscular tremors, involuntary discharges, subsultus tendinum, coma (a late symptom), headache, tremor of tongue, deafness, tonic spasms (in 2 cases of tetaniform character), risus sardonicus, convulsions, floccitation, tinnitus aurium, giddiness, drowsiness, vomiting, silliness of manner, fearfulness, hesitating speech, chorea, and hyperæsthesia. Many such symptoms—such as those indicated merely by alteration or strangeness in demeanour—may easily have escaped record, and the report deals particularly with the subject of delirium in relation to the hyperpyrexia. Three groups of cases in which delirium was noted may be established according as the delirium preceded the onset of hyperpyrexia (24 cases), accompanied it (19), or followed upon it (10 cases); and each of these groups is analysed as to the date of appearance and duration of the delirium, the intensity of the associated hyperpyrexia, and the result of the case. In this abstract it may suffice to point out that of the cases in which the delirium preceded the hyperpyrexia, 19 died and 5 recovered; of those in which both symptoms arose together, 6 died and 13 recovered; and of those where delirium appeared after the hyperpyrexia, 3 died and 7 recovered. Delirium does

(a) The Committee was appointed in October, 1879, to "investigate the causes, consequences, and treatment of hyperpyrexia in rheumatic fever and other acute febrile diseases." It consisted of Drs. Southern, Weber, Ord, F. Taylor, Barlow, and Coupland.



not appear to mark the undue severity of the disease, for out of 57 cases there were 31 deaths and 26 recoveries; in 8 cases, in which it was absent, the highest temperature was 107°, and there were 6 recoveries to 2 deaths. Delirium and death, however, marked some cases where the temperature never reached extreme levels.

The Hyperpyrexia.—Bearing in mind the definition of the condition, and the subdivision of the cases given at the outset, the present portion of the report is simply a study of thermometry. It will be seen how varied the hyperpyrexia is, not only in its intensity and duration, but in the manner and time of its appearance, and how fruitless would be the endeavour to discover laws which govern its course. Thermometric curves show at a glance the capriciousness which is its characteristic feature. In some cases an abnormally high temperature, existing for days or hours, almost suddenly leaps to higher levels; in others a more gradual ascent takes place; in yet others there is a far more rapid rise from a comparatively mild and moderate pyrexia. Are we, then, in a position to assert that there is such marked difference in the mode of onset of the hyperpyrexia, and in its course, as to enable a subdivision into types of hyperpyrexia to be established? To answer this question, it is necessary to critically examine the temperature-curves of a large number of cases. A study of the temperature charts in 47 cases enables one to discriminate at least five different types of the condition, as regards the mode of onset of the hyperpyrexia and the course taken by it. These subdivisions are of necessity somewhat arbitrary, and intermediate forms are met with, which it is difficult to classify. However, when marked examples are taken, the division appears to have some reasonable basis in fact.

Type A.—Temperature rising gradually for a few days, and then suddenly culminating in a maximum by an exacerbation of several degrees: of this there are 11 examples.

Type B.—Temperature, after maintaining for one or more days a moderate level, suddenly rises to excessive heights: 12 cases fall under this category, which present also transitional curves between this and the preceding type.

Type C.—The pyrexia has a more continuous course, not unlike that of typhoid fever, without violent or excessive exacerbations: 3 cases fall under this class.

Type D.—Temperature rising gradually to a maximum, and then permanently reduced by the cold bath or wet pack: 3 cases conform to this type.

Type E.—Cases of severe character, in which the tendency to rise to hyperpyrexial heights is very pronounced, so that to control it cold baths have to be frequently repeated: 8 cases are included.

There remain 9 cases which cannot be classed under any of these types, and no attempt is made to analyse the very irregular course of temperature exhibited by them.

The intensity of the hyperpyrexia observed in these cases can only be approximately estimated by reference to the maximum temperature attained, and the duration of the hyperpyrexial tendency, since the necessity of treatment by the adoption of antipyretic measures checks the rising temperature, and the thermometer does not mark the limit it might have attained. In several cases such measures are at once effectual; in many others even repeated applications have no influence in averting death. The following table shows at a glance the influence on mortality exerted by the degree of temperature attained, as well as the effect of bathing, to which further reference is made under the head of Treatment:—

Morning temperature.	No. of cases.	RECOVERED.			DIED.		
		Bathed.	Not bathed.	Total	Bathed.	Not bathed.	Total
111.1° to 112°	3	0	0	0	1	2	3
110.1 „ 111	1	0	0	0	1	0	1
109.1 „ 110	8	1	0	1	6	1	7
108.1 „ 109	7	1	0	1	5	1	6
107.1 „ 108	9	4	0	4	4	1	5
106.1 „ 107	11	8	0	8	3	0	3
105.1 „ 106	18	7	6	13	2	3	5
104.1 „ 105	8	2	4	6	0	2	2
103.1 „ 104	1	1	0	1	0	0	0
102.1 „ 103	1	0	0	0	0	1	1
Total . .	67	24	10	34	22	11	33

The occurrence of some fatal cases where the temperature was not excessive shows that death is not invariably due to the hyperpyrexia alone. The fatal cases all terminated in or before the sixth week of the rheumatic attack. No deaths took place in the first week; and 20 out of the 33 occurred in the second and third weeks. Naturally, in cases of recovery, convalescence was prolonged; so that only 5 out of the 34 recoveries were well within the first six weeks, the rest at various periods up to the twelfth.

An attempt has been made by comparison of the cases to ascertain whether any definite relation does or does not exist between the maximum temperature attained, the date of onset of, and the duration of, the hyperpyrexia. And great variety was found to exist, for although in some of the severest cases the outburst of high temperature took place early in the disease, in others its appearance was much delayed. As to duration, although, as might have been expected, the cases marked by the highest degree of hyperpyrexia reached a fatal termination in a few hours, some were prolonged for days, whilst some of milder type were of brief duration. The prolongation of the hyperpyrexial period of severe cases was doubtless often due to the influence of treatment.

Post-mortem appearances are recorded in 29 out of the 33 fatal cases. In 5 of these there were no manifest visceral changes, and as to lesions of recent inflammatory kind, there were meningitis (limited) in 2 cases, pericarditis in 9, endocarditis in 8, pneumonia in 2, pleurisy in 4, and in several cases more than one of these lesions occurred in the same subject. So that the proportion of cases in which recent visceral inflammations were absent was very considerable.

The Treatment of Hyperpyrexia.—Amongst the various methods employed for the reduction of temperature by the external application of cold, that of the bath is the one most generally employed. Forty-six of the cases were so treated, in some obviously as a last resort. Hence the mortality is high, viz., 22 to 24 recoveries, the non-bathed giving 11 deaths to 10 recoveries. However, of the latter which recovered, none exceeded a maximum of 106°, and of the former as many as 15, or five-eighths of the total, were cases in which the temperature reached above that level. Again, in 6 out of the 11 fatal cases that were not bathed, the maximum was below 106°, and in only 3 out of the 22 fatal bathed cases. The average maximum temperature in these fatal cases was 107° in the non-bathed, 103.2° in the bathed. So it appears that when the hyperpyrexia is of great severity this treatment is often of no avail, but that it turns the scale in the direction of recovery when the temperature has not attained that high level; and, further, in many cases recourse is had to it too late. No doubt differences exist in various cases with respect to the most suitable time for having recourse to the treatment, and the Committee emphasise the injunctions laid down by others that indications for its employment must be sought in the occurrence of the prodromal signs above mentioned together with a rising temperature. There is much to show that the treatment not only reduces temperature, but allays delirium, reduces the frequency of and gives strength to the pulse, and induces sleep. The facts, however, that a certain number of cases in which the temperature does not reach 106° succumb if not treated by baths, and that only 1 of the 22 fatal cases which had been so treated had a maximum temperature below 105°, point to the advisability of having recourse to the bath when the temperature reaches 105°. There seems little doubt that if this were systematically done, the mortality in rheumatic hyperpyrexia would be materially diminished. An analysis is given in the report of the forty-six cases submitted to this treatment with respect to the number of baths given, the temperature of the body when given, the temperature of the bath, and the extent to which the body temperature is reduced by the bath and the time taken for it to reach the minimum. It is not possible to give these facts in an abstract, but it is sufficient to say that the results are most variable and fully bear out the conclusion that it is impossible to predicate what amount of reduction in temperature may be expected from a bath of any given temperature or duration.

CONCLUSIONS.

1. That cases of hyperpyrexia in acute rheumatism appear to prevail at certain periods, having in the last decade been

remarkably numerous in the years 1873-76, whereas latterly they appear to have been much less frequent. That such excess corresponds in a certain degree, but not in actual proportion, to a similar excessive prevalence in acute rheumatism generally. That the largest number of cases of hyperpyrexia arose in the spring and summer months, whereas rheumatism is relatively more common in the autumn and winter.

2. That whilst very little difference obtains between the two sexes in regard to proclivity to rheumatism, the proportion of males to females exhibiting hyperpyrexial manifestations is 1·8 to 1. But that as to age no such marked difference exists; nor as to occupation.

3. That the subjects of hyperpyrexia show no undue rheumatic tendency as regards family predisposition.

4. That cases of hyperpyrexia preponderate in first attacks of rheumatic fever.

5. That hyperpyrexia is not necessarily accompanied by any visceral complications, but may itself be fatal. The complications with which it is most frequently associated are pericarditis and pneumonia.

6. That the mortality of these cases is very considerable, hyperpyrexia being one of the chief causes of death in acute rheumatism.

7. That although present in a certain number of cases, and then of much value from their prodromal significance, neither the fact of the abrupt disappearance of articular affection, nor the similarly abrupt cessation of sweating, is an invariable antecedent of the hyperpyrexial outburst.

8. That the supervention of delirium or other symptom of nervous disturbance is very frequent, either antecedent to or simultaneous with the hyperpyrexia.

9. That there is considerable variability in the date of the occurrence and in the duration of the hyperpyrexial condition, ranging, according to our observations at least, from the fourth to the thirtieth day.

10. That when death results it has occurred mostly in the second and third weeks of the rheumatic attack.

11. That the post-mortem examinations in a certain proportion elicited no distinct visceral lesions, and that when present the lesions are not necessarily extensive.

12. That the prompt and early application of cold to the surface is a most valuable mode of treatment of hyperpyrexia. That the chances of its efficacy are greater the earlier it is had recourse to. That the temperature cannot safely be allowed to rise above 105°. That failing the most certain measure—viz., the cold bath—cold may be applied in various other ways: by the application of ice, by cold affusions, ice-bags, wet sheets, and iced injections.

The Committee did not think it advisable in the present report to enter into theoretical considerations, and limiting the study of hyperpyrexia to the records of sixty-seven cases of acute rheumatism, deemed it premature to enter into physiological reasonings until the same conditions had been reviewed in other acute febrile diseases. The report is signed by Drs. R. Southey, H. Weber, W. M. Ord, F. Taylor, T. Barlow, and S. Coupland.

PAUPER INTERMENTS.

CERTAIN cases having recently been brought under the notice of the Local Government Board, where, in consequence of defective arrangements and want of proper supervision on the part of workhouse officers, mistakes have occurred resulting in the burial of the body of a pauper under a wrong name, in the interment not taking place in the proper cemetery, or in the performance of a burial service over a coffin not containing a body, the Board have in a circular letter drawn the attention of boards of guardians to the subject of the arrangements for the disposition and burial of the bodies of poor persons dying in workhouses.

The Board observe that it is scarcely necessary to point out that mistakes of this kind are calculated not only to wound the feelings of the relatives, but to occasion public scandal; and they are extremely desirous that all necessary precautions should be taken to prevent their recurrence. With this view, the deadhouse or mortuary at the workhouse or infirmary should be devoted exclusively to the purpose for which it is designed, and should never be placed under

the care of pauper inmates without frequent and systematic supervision. The proper disposition of the bodies, and the necessary arrangements for their decent interment, should be under the immediate direction of the master. Shells should be provided for the bodies until coffins are ready. To prevent any mistake as to identity, two tickets bearing the names of the deceased should be placed the one outside the coffin and the other attached to the shroud. Each body, after being placed in the coffin, should be inspected by the master, accompanied by the nurse or other subordinate officer who knew the deceased when living, and who would be able to identify the body. Care should be taken that a proper coffin-plate, giving names, age, and date of death, should be affixed to the lid of each coffin before it is closed; but when a plate cannot be conveniently provided the particulars may be inscribed on the coffin itself. These precautions, proper in all cases, are specially needful in large workhouses, where it frequently happens that several bodies are in the mortuary at the same time, and where, therefore, unless due care is taken, confusion is liable to occur. In conclusion, the Board remind guardians of unions, from whence the unclaimed bodies of paupers dying in the workhouse are sent to a hospital or medical school, that the provisions of the Anatomy Act should in all cases be most strictly complied with.

FROM ABROAD.

THE FEEDING OF YOUNG CHILDREN.

THIS is one of those subjects which, well worn as it might seem to be, always gains something on passing through fresh hands; and this will be found to hold good in the following abstract of a lecture delivered at the *Hopital des Enfants Malades* (*Gaz. des Hop.*, March 2) by Prof. Archambault.

Much ill, and with some reason, he observes, has been spoken of the artificial feeding of infants, but it is going much too far when it is said that this should be totally suppressed. In a certain number of cases this is utterly impossible, and for some children we shall always have to resort to animals for a supply of milk. Moreover, the inconveniences which attend this practice are much more due to the manner in which it is carried out than to the actual quality of the substance made use of; and in the majority of cases even these inconveniences will prove very slight if we know how to observe the necessary precautions.

First of all we may pass rapidly in view the composition of the milk of those animals we can have recourse to as compared with that of woman. As a mean, this last contains, per litre, 19 grammes of casein, from 46 to 53 of sugar of milk, and 45 of butter, while we find that the milk of the ass is that which approaches the nearest to this. Consequently, it is the most digestible, and therefore to be recommended to supply the place of woman's milk, especially during the first months after birth. On the other hand, the milk of the cow and of the goat contains nearly double the proportion of casein (36 and 37 instead of 19 grammes). This renders it more indigestible, and when the infant vomits it, the clot is harder and more compact than that which is produced from the milk of the woman and of the ass. Still, cow's milk being that which has to be generally employed in large towns, it is desirable to know how its composition may be brought as near as possible to that of human milk. This is merely a matter of proportion. Thus, 1000 grammes of cow's milk containing 36 grammes of casein, we have only to take 528 grammes of this milk to get 19 grammes of casein, and then make up the 1000 by adding 472 grammes of water—that is, diluting the milk by nearly one-half. The quantity of sugar of milk is nearly the same in the two milks, and the difference that exists as regards butter is of no consequence, for the milk of the ass, which is well digested, contains only 15 instead of 45 grammes of this. To supply the diminution of salt contained in the milk by the dilution with water, 20 or 30 centigrammes of phosphate of lime and a small pinch of salt may be put into each sucking-bottle. Freshness of the milk is of great importance, and where it can be supplied only in the morning, that reserved for the evening should be boiled in order to prevent its turning. In

place of adding simple water to the milk, as here recommended, barley-water or gruel is almost invariably used; but this is a faulty practice, for those who have charge of the infant, in place of preparing these additions separately for every bottle, make them for the entire day, thus causing their acidity, which is most mischievous to the child. In fact, the sucking-bottle should be filled only when it is wanted, and any that is not taken should be thrown away.

Another important point is the regulation of the dose and the time of taking the milk prepared as stated. At first only from 30 to 40 grammes should be put into the bottle, and repeated every two hours; a little later 60 grammes may be given, and then 100 grammes at the third month—the intervals of administration now being more prolonged. The milk should not issue too freely from the bottle, but only through small holes that have been pierced in the caoutchouc or teat. In this way it gets better mixed with the saliva and is digested more easily. All portions of the apparatus employed should be capable of being easily taken to pieces so as to admit of thorough cleansing. Bottles also should only be employed which have to be held in the hand, and not left at the disposal of the child. All others are mischievous as leading to indigestion. Carelessness in all these matters is far more dangerous even than a faulty quality of the milk, and it is chiefly owing to it that so many lives are lost while bringing infants up by hand.

All mothers cannot suckle their infants to the end, and we have to find out whether the little being is born robust, in which case it may be put to the bottle from its birth. But when it is weakly and puny or sickly, it should be suckled for some months. It is quite exceptional for a mother not to be able to suckle her child, at least temporarily, so that the third month may be gained before having recourse to the careful use of the bottle. Its substitution for the breast may then be commenced at night, the mother suckling the infant during the day; and thus the bottle may be gradually used both day and night. Another question is, At what period should other aliment be given an infant besides milk? Upon this point opinions are rather divergent: only refer to one of these, that of Trousseau, who recommended that infants should have nothing but milk until a year had elapsed; but in Dr. Archambault's opinion, in order that the infant's constitution should be of a solid character, and its flesh not too soft, food should be given after the sixth month. At first, some children refuse this, but we must persist and persevere, varying the mode of preparing the aliment. As to the substances to be employed, a general agreement exists that they should consist of the *fecula*, any kinds of which, such as arrowroot, tapioca, etc., are useful, providing that they are pure; but of all kinds of this aliment, wheat flour, in the form of bread or biscuit, is the most nutritive. Whether prepared with water or milk, the great thing is that it should be well cooked, so as to form a kind of jelly, to which a little butter and salt should be added. At first this should be given only once a day, and exactly limited to six or eight spoonfuls, or about 100 grammes. It should afterwards be increased or diminished, according to the appetite of the child and the nature of the stools which follow its use. At nine months, two meals should be given daily, one as just described, and the other consisting of a mixture of cocoa, *fecula*, and sugar, or a tablet of chocolate may be grated into a light preparation of its other food. The infant digests this preparation very well. Frequently the relatives will urge the substitution of broth as being more nourishing than milk; but this is a great error, for even strong, well-made broth only contains thirty grammes per litre of nutritive matter. When a year old, the child may have three moderate meals a day, and at one of these an egg may be given, either in the shell, or, better still, mixed, as formerly used to be done, with milk, sugar, and *fecula*. Wine or reddened water, of which infants are so fond, is unsuited for them, as giving rise to acidity; nor is meat fit food for infants, juice of meat, thoroughly mixed up with some mashed potato, being the very most that should be allowed about the twelfth or thirteenth month. Until the child can masticate, however carefully meat may be chopped up, it will be ill-digested, and give rise to *foetid* stools. Unless the child is anæmic, and fourteen months old, meat should not be authorised, and then should be grated and beat in a mortar, together with a little water, and passed through a sieve. Of this a portion as large as a walnut, or about thirty grammes, should be given only once daily with the aliment that the

child most prefers. In this way we may proceed until we reach the eighteenth or twentieth month, when the infant may commence eating in reality; but meat should not be given it to masticate until it has its twenty teeth.

REMOVAL OF BENIGN TUMOURS OF THE BREAST.

Dr. Gaillard Thomas recently read a paper before the New York Obstetrical Society (*New York Med. Journal*, April), having the following title: "On the Removal of Benign Tumours of the Mammary without Mutilation of the Organ." The propriety of removing these tumours, he observed, is by no means settled in the minds of surgeons, it being the general custom to leave them alone as long as they are supposed to be of a non-malignant character. While this may be good conservative practice on the whole, it must be admitted that there are many cases that constitute exceptions to it, and, in Dr. Thomas's opinion, benign tumours of the breast should, as a rule, be promptly removed, their being left uninterfered with being the exception. By those who oppose operation it is thought to be unnecessary as long as the tumour does not rapidly increase in size—"first, because no damage occurs to the health or constitutional vigour from its mere presence; second, because it is, under these circumstances, hardly considered a legitimate course to expose a patient to an operation which is attended by danger to life; and third, because the mutilation resulting from the operation is, for obvious reasons, regarded as a calamity to a woman in any period of her existence except that of advanced age." In opposition to these views, Dr. Thomas believes that the state of disquietude, misery, and anxiety which takes possession of a woman having a tumour of her breast, renders resort to an operation for its removal quite defensible. Moreover, this can be performed with much less risk than formerly, and removes all the danger of the subsequent degeneration of a benign into a malignant growth, while it may be so executed as to avoid mutilation.

"The operation is thus performed. The patient standing erect, and the mamma being completely exposed, a semi-circular line is drawn with pen and ink exactly in the fold which is created by the fall of the organ on the thorax. This line encircles the lower half of the breast at its junction with the trunk. As soon as it has dried the patient is anæsthetised, and with a bistoury the skin and areolar tissue are cut through, the knife exactly following the ink line until the thoracic muscles are reached. From these the mamma is now dissected away until the line of dissection represents the chord of an arc extending from extremity to extremity of the semicircular incision. The lower half of the mamma, which is now dissected off, is, after ligation of all bleeding vessels, turned upwards by an assistant and laid upon the chest-wall just below the clavicle. An incision is then made upon the tumour from underneath, a pair of short vulsellum forceps firmly fixed into it, and, while traction is made by these, its connexions are snipped by scissors, the body of the tumour being closely adhered to in this process, and the growth is removed. All hæmorrhage is then checked, and the breast is put back into its original position. Its outer or cutaneous surface is entirely uninjured, and the only alteration which has been effected in the organ is the leaving of a cavity which was formerly occupied by the tumour. A glass tube with small holes at its upper extremity and along its sides, about three inches in length and of about the size of a No. 10 urethral sound, is then passed into this cavity between the lips of the incision; and its lower extremity is fixed to the thoracic walls by india-rubber adhesive plaster, and the line of incision is closed by interrupted suture. In doing this, to avoid cicatrices as much as possible, very small round sewing-needles are employed: these are inserted as nearly as possible to the edges of the incision, and carry the finest Chinese silk. After enough of them have been employed to bring the lips of the wound into accurate contact, the line of the incision is covered with gutta-percha, collodion, and the ordinary antiseptic dressing applied. If the glass tube appears to accomplish perfectly the drainage of the cavity, there is no offensive odour to the discharge, and the temperature does not rise above 100°. The tube is then in no way interfered with until the ninth day, when the stitches are removed. If, on the other hand, the tube does not appear to perform its functions satisfactorily, it is manipulated so as to cause it to drain all parts of the cavity, and warm carbolised water is freely injected

through it every eight hours. On the ninth day, when the stitches are removed, the tube is removed likewise."

In his early operations, Dr. Thomas cautioned his patients that a depression would mark the locality where the tumour had been; but he has found that in fact, in most cases, no such depression ensues, while in none of them has it been sufficiently marked to attract any especial attention. The only sign of the operation that remains, if it has been neatly done, is a delicate cicatricial semicircular line, which is in a great degree concealed by the folding of the skin as the breast hangs downwards, and a spot of cicatricial tissue where the drainage-tube prevented union by the first intention. In one of the cases, where the tumour existed so high in the upper segment of the breast as to require a lateral semicircular incision instead of an inferior one, the result was less perfect.

Dr. Thomas regards the operation as inapplicable to very large or to very small growths, being insufficient for the former, and unnecessarily radical for the latter. In the twelve cases in which he has resorted to it, it has been for fibromas, lipomas, cysts, and adenomata, varying in size from that of a hen's egg to that of a duck's egg, or a little larger. In most of the cases he has been induced to interfere "by the extreme mental disquietude which has been created by the existence of a tumour, no assurance of the benignity of which could satisfy my patients, or render them willing to bear with equanimity the suspense of inaction; and thus far the results have been sufficiently satisfactory to make me feel warranted in reporting the procedure as one which is worthy of adoption."

GENERAL CORRESPONDENCE.

THE PARASITIC ORIGIN OF DISEASE.

LETTER FROM MR. H. O. THOMAS.

[To the Editor of the Medical Times and Gazette.]

SIR,—The "médecin anglais," as to whom your correspondent "Bacillus" makes inquiry in your last week's publication, must be the gentleman referred to by Mr. Royston in his "Sketch of the Progress of Medicine." In vol. xxiv. of the *Medical and Physical Journal*, page 24, he mentions a "practitioner, who resided at Sandwich, in Kent, who wrote a book with the quaint title of 'Vermiculars Examined,' in which he undertakes to prove, not only the existence of animalcules in all parts of the human frame, but that they are the cause of all diseases," and adds, "there has never been an opinion so absurd." I am, &c.,

HUGH OWEN THOMAS.

11, Nelson-street, Great George-square, Liverpool,
May 26.

SMALL-POX IN VIENNA.—The Vienna Stadtphysikat has brought under the notice of the magistracy of that city the recent great increase of small-pox, with the view of carrying out more effectual vaccination and revaccination. The document which it has published states that in the spring of every year numbers of the working-classes arrive from all the provinces of the empire, adding to the population a large number of unvaccinated individuals, who, with the unvaccinated Vienna population, keep up a constant supply of subjects for small-pox, so that the disease is now never absent from the city, while from time to time it breaks out epidemically. The following are the numbers of deaths from this disease during the last ten years:—1871, 415; 1872, 2960; 1873, 1299; 1874, 850; 1875, 719; 1876, 1154; 1877, 554; 1878, 521; 1879, 523; 1880, 493; 1881, 779; and for the first quarter of 1882, 336. It has been found that of 1514 cases of small-pox occurring in 1882 in only 571 instances had the subjects of them been vaccinated. —*Allg. Wien. Med. Zeit.*, May 9.

THE SEXES IN VICTORIA.—According to the census of 1881, the sexes in Victoria have attained a nearer approach to uniformity than had been anticipated, or had been reached at any previous period in the history of the colony. The proportion of females was 90·75 to 100 males, or 110·2 males to 100 females. In 1861 the proportion of females was a trifle less than 64·5 to 100 males.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 12.

JOSEPH LISTER, D.C.L., F.R.S., F.R.C.S., President,
in the Chair.

MR. PEARCE GOULD showed a man, aged seventy-three, on whom he had performed a new operation for amputation of the penis. The disease for which this was done was epithelioma, extending back to the pubes. The scrotum was split along the raphe, the urethra detached from the penis and fixed to the perineum just behind the scrotum, and the crura of the corpora cavernosa were then peeled off from the pubic arch, and the whole organ thus removed. The man had complete power over his urine.

Dr. STEPHEN MACKENZIE exhibited an interesting case of petechiosis rheumatica in a female.

ANEURISMAL VARIX AFFECTING THE HAND AND FINGERS.

Mr. T. SMITH read notes of a case of aneurismal varix affecting the hand and fingers, and exhibited the patient, a healthy female, aged twenty-five, admitted into hospital last February for great loss of blood from an abrasion in one finger. This was easily controlled by pressure. The disease was stated to have commenced at the age of a year and a half, following a severe burn in the left hand. This hand is now much larger than the other, and the whole of its subcutaneous veins dilated and tortuous; the arteries of hand and forearm are much enlarged and constrained. A purring, continuous venous thrill is to be felt on lightly grasping the hand, and a well-marked arterial thrill on firmer pressure, over the whole of the affected member. Bruits corresponding to these thrills are to be heard on auscultation.

Mr. HOLMES referred to a somewhat similar case. Ordinary operation did not seem desirable, and in consultation tying the subclavian seemed hardly justifiable. The man died of typhoid, and the post-mortem showed there was no communication between the artery and the vein. There was only an enlarged and varicose condition of the veins and arteries. The patient, who was an actor, met with an accident on the stage, after which the condition came on slowly.

Mr. HEATH had twice seen such a condition in the lower limb. In one case the increasing pulsation impelled the patient to seek advice. Pressure on the femoral had no effect. No treatment seemed to do any good. In neither of his cases was there any history of accident or injury.

Mr. LISTER remembered seeing a patient under Mr. Syme, whose hand was affected in the way referred to. The arteries and veins were enlarged and pulsating, the ring finger being especially implicated. The pulsation was aneurismal, and he looked upon it as a peculiar form of nævus. Mr. Syme decided to do nothing, and that was probably the best course in such cases.

Mr. SMITH thought his case different from arterial nævus. He had seen but one other example of aneurismal varix, produced by a youth cutting his femoral artery and vein with a penknife. The patient was now fairly well, which showed that these cases tended to improve.

REMOVAL OF AN EPITHELIOMATOUS ULCER BY SCRAPING.

Mr. T. HOLMES related this case, which was that of a young man suffering from an ulcer of the leg, which presented decided appearances of epithelioma, both to the eye and the microscope. It was of very large size, almost isolating the tendo Achillis, and accompanied with considerable enlargement of the inguinal glands. These symptoms would undoubtedly have been held, in former times, to indicate amputation. The total removal of the epitheliomatous tissue, followed by the free application of the actual cautery, was sufficient to induce sound cicatrization, and the enlarged glands subsided entirely. This is a fresh proof of the feeble malignancy of epithelioma.

Mr. DENT had been struck by the favourable results obtained in these cases. In a case recently under his care, of flat epithelial cancer, of six years' growth, this was scraped and cauterised with good results, though the growth extended down to the bone. In another case a woman had an

epithelioma-like ulcer of the leg, alveolar and pigmented. The constitution also seemed affected. This would not be a suitable case for operation.

Mr. T. SMITH said that all surgeons must have been struck with the varying malignancy of ulcers. Epithelioma in a subject of twenty must be very rare—he had never seen a case. At such an age it could hardly be very malignant.

Dr. WILTSHIRE remarked that even though epithelioma rapidly spread when it attacked the vagina, one scraping often sufficed to relieve pain and hæmorrhage, though an offensive fluid continued to flow. In two of his cases the patients did well for some months, but after that time grew worse—one had died, and the other rapidly growing worse. In a case where Paul Mundé operated for him, the whole uterus came away; the woman lived for eight months, but died at last from uræmic coma. A patient who had been scraped and cauterised four and a half years ago was still well.

Mr. R. W. PARKER was struck by the fact that the tendo Achillis was entire in Mr. Holmes's case, as cancers tend to eat into any tissue.

The PRESIDENT mentioned the case of a patient who often came to Simon at Heidelberg for relief for an epitheliomatous ulcer in the rectum. He thought the spoon should only be used where the knife could not. However carefully removed, epitheliomata did recur. In a case of his own he had removed an epithelioma of the cheek, making a wide cut; but the growth returned. He was not sure of the epitheliomatous nature of Mr. Holmes's case.

Mr. HOLMES, in reply, said he suspected that many growths originally local tended to become epitheliomatous and constitutional in type. His case certainly corresponded to the ordinary descriptions of epithelioma, and he would urge that such cases, if early treated, might result in the extirpation of a disease rapidly becoming malignant.

REMOVAL OF LOOSE CARTILAGES.

Mr. T. HOLMES related a case of removal of loose cartilages. The case was in two respects remarkable—first, on account of the number of loose cartilages (there being six of large size and one small one) contained in the joint in a person not apparently affected with chronic rheumatic arthritis, and still very active, and even athletic; and next, on account of the perfect impunity which attended the somewhat protracted manipulations necessary for their extraction, there being no rise of temperature or any symptom of inflammation, except that which followed a somewhat too early use of the limb, and this was only trifling.

Mr. HAWARD had removed three loose cartilages from the knee of a man some time ago, and since then one in another patient. He advocated a free incision as better than a small one. He preferred small lithotomy-forceps to the fingers in the removal of the cartilages.

The PRESIDENT said the case was both rare and interesting. He had only seen one under Professor Thiersch, who removed several from one joint—some rather large. They seemed to grow after separation. Mr. Joseph Bell had suggested that they should first of all be fixed by a needle, cut down upon, and removed by the needle.

Mr. HOLMES condemned this plan, especially if the cartilages were hard and resistant. Free incision with antiseptic precautions was undoubtedly the best and simplest plan of procedure. In his own case he had failed to find two cartilages. Professor Pirrie mentioned a case where twenty-five were removed. It was quite a mistake to suppose that the joints were always diseased when loose cartilages existed in them.

A CASE OF CEREBRO-SPINAL SYPHILIS.

Dr. ALTHAUS read a paper on a case of cerebro-spinal syphilis. The patient, a healthy young man, suffered, eight years after an infecting sore, from severe headaches, which continued for six months, and were followed by an attack of aphasia and right hemiplegia, after which they ceased. He recovered his language, but the paralysis remained, and was followed six months later by paralysis of the left leg and the bladder and bowels. There was rigidity in the paralysed limbs, and an enormous increase of tendon reflexes, so that the slightest irritation, such as a sudden noise, opening the door, etc., caused the legs to shake fearfully, exhibiting the condition of spinal epilepsy. The centre of these movements was in the patellar tendon, but percussion of any point of

the tibia and the rectus femoris led to similar, although less violent, phenomena; ankle-clonus was likewise marked, and the faradic and galvanic excitability of the nerves and muscles appeared to be increased. In the right arm powerful tendon reflexes could be elicited by gently striking the metacarpal bones, the capitulum ulnæ and the styloid process of the radius, the olecranon ulnæ, and the humerus. The abdominal and cremasteric reflexes were also increased; the muscles of the body were paretic. The urine, which had to be drawn off by the catheter, was healthy, except that there was occasionally an excess of lithates. The sexual power and desire were in abeyance. Dr. Althaus considered the exceedingly violent headache from which the patient had suffered not owing to a gummatous deposit, to which it is generally ascribed, but to syphilitic endo-arteritis; this was going on all the time the headache lasted, and ultimately led to thrombosis of the left middle cerebral artery and softening of brain-tissue. When the artery was completely blocked the headache ceased, never to return. With regard to localisation, he argued that it was not the main branch of the Sylvian artery which had become blocked, but its cortical system, more particularly the anterior and posterior parietal arteries; and that the affection was therefore not one of the corpus striatum, but of the central convolutions bordering the fissure of Rolando. His chief reason for this was that the aphasia had been quite temporary, and that in plugging of the main branch of the middle cerebral loss of language is generally permanent. He thought the paralysis of the left leg and of the bladder and bowels, which came on six months after the first attack, not to be owing to fresh arterial thrombosis in the right cerebral hemisphere, but to secondary sclerosis of the pyramidal strand spreading from the right side through the anterior commissure to the left side of the lumbar enlargement of the cord, where it involved, not only the pyramidal strand, but also the paths for the conduction of motor impulses to the bowels, bladder, and sexual organs.

DISORDER OF MOVEMENT FOLLOWING RIGHT HEMIPLEGIA.

Dr. WILLIAM M. ORD read notes of a case of disorder of movement following right hemiplegia. M. A. J., aged fifty-three, female servant, was admitted for the first time to St. Thomas's Hospital on May 25, 1881. On the evening of the preceding day she had suddenly lost power over the right arm and leg, without loss of consciousness. When examined she presented complete motor paralysis of the right arm and leg, with impairment of sensation more marked in the leg than in the arm. There was no facial paralysis, but the right pupil was larger than the left, and sensation was impaired on the right side of the face. There was no defect of mind or of speech. For a few days her condition became worse. She became apathetic, had some difficulty in articulation, and loss of the memory of words, some paralysis of the right facial muscles, and loss of control over the bladder, without rise of temperature. The urine contained no albumen, but the retina presented the signs of albuminuric inflammation. After this condition had lasted a few days she began to amend. Her intellect became clear, and voluntary motor power and sensation returned—in the leg first, afterwards in the arm. She was discharged on September 30, showing very little weakness of the right side. When re-admitted, on February 17, 1882, she stated that at the time of her leaving the hospital in September two fingers of her right hand used to twitch involuntarily. She did not mention this, and it was not noticed. But from that time she began to experience steadily increasing involuntary movements of the arm and hand, with stiffness of the leg. When admitted for the second time she was in very fair general health. There was some imperfection of movement of the right half of the mouth, but no other facial paralysis. The tongue deviated to the left. The left pupil was smaller than the right. The right arm was in constant movement—upper arm, forearm, and hand, all sharing. At present, when she is sitting with the right hand resting on her lap, the fingers are all extended, and are alternately moved together and separated, as in the act of playing on the pianoforte; the palm of the hand is pressed with a rocking movement against the lap, the wrist rotating in about a fifth of a circle; the elbow is sometimes quiet, sometimes adducted and abducted gently. The shoulder is rhythmically raised and depressed. These movements are perfectly regular, and recur at the rate of about 140 times in the minute. When the hand is moved voluntarily

from the lap the movements become more extensive. If a book is presented to her she brings her hand to it with a double series of pendulum movements, small in the hand and wrist, large in the whole limb, which sways several inches alternately on each side of the intended line of movement. Ultimately she seizes the book and holds it firmly, while the arm continues its vibrations. When the whole arm is abducted the vibrations increase in extent and force, moving the limb as though it were a pump-handle vigorously worked, shaking and swaying her whole body. The movements cease during sleep, and are sometimes almost lost when she is sitting or lying very quiet with the hand and arm completely supported. Sometimes on waking she finds the arm stiff for a time. There is no loss of sensation and no disorder of sensation. The patellar tendon-reflex is much exaggerated on the right side, not on the left. The arm tendon-reflexes can be elicited, but not ankle-clonus. Her mind and speech are clear, but she walks with a limp because of the stiffness of the right leg, which, however, does not present any of the rhythmical movements seen in the arm. The superficial reflexes are normal, except that the plantar is increased on the right side. The eyes now present no abnormality. The original hemiplegia was probably hæmorrhagic, there being no valvular disease, and the signs of albuminuric retinitis having been present soon after the attack. The movements are neither those of athetosis nor of chorea, but, resembling in part those of paralysis agitans, more closely approach the vibratory tremors attending voluntary movements in sclerosis of the lateral columns and disseminated sclerosis. The exaggeration of the tendon reflexes goes with this to lead to the belief that in this case the past hemiplegic disorders of movement probably depend upon a descending lesion.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 23.

JOHN MARSHALL, F.R.S., President, in the Chair.

REMOVAL OF LARYNGEAL GROWTHS BY ENDO-LARYNGEAL OPERATIONS AND THE GALVANO-CAUTERY.

DR. FELIX SEMON read notes of two cases of laryngeal growths, in which the neoplasms were successfully removed by endo-laryngeal operations with the aid of the galvano-caustic method. The first of these two cases was one of multiple, sessile, in part subglottic, recurrent, papillomata, occurring in a young lady aged twenty, after a common cold, and giving rise to complete aphonia and slight dyspnoea on exertion. The supraglottic portion of the growths having been removed with forceps, and the tendency towards recurrence, which at first was most markedly manifesting itself, having been gradually exhausted after repeated removals, the subglottic papillomata, which it was found could not be removed by any endo-laryngeal method, were destroyed with the aid of a suitably bent galvano-cautery which was introduced between the vocal cords during the act of deep inspiration. The patient completely recovered her voice, and has been free from recurrence of the growth for more than four months. The second case was one of a very large and hard, broad-based fibroma, originating from the anterior commissure of the vocal cords and the anterior third of the right vocal cord, occurring in a man aged thirty-three, and causing complete aphonia and dangerous dyspnoea, filling up as it did almost the whole of the glottic cavity. Its growth was to be traced for the last ten years. It was removed by the aid of a galvano-caustic loop passed round it, and was found to be one of the largest benign laryngeal growths on record. The patient completely regained his voice, and is now quite well. Rosbach's method of producing local anæsthesia of the larynx by directing two ether sprays simultaneously against the points of entrance of the superior laryngeal nerve into the thyro-hyoid membrane was resorted to, but not found in this case to afford any material advantage over the simpler expedient of directing the patient to suck lumps of ice some time before the operation. Dr. Semon stated that he had brought these cases before the Society, because they practically proved that certain qualities of laryngeal growths, such as multiplicity, subglottic position, tendency towards frequent and quick recurrence, and again, excessively large size, broad base, and great hardness, which were generally looked

upon as so many contra-indications against the performance of any endo-laryngeal operation, are in reality no serious obstacles to endo-laryngeal interference even if several of them occur together. He discussed at some length the comparative advantages and disadvantages of extra- and intra-laryngeal operations in cases of benign laryngeal growths, showing that thyrotomy gave no guarantee against recurrence of papillomata, and that this operation in itself, as conclusively shown by Paul Bruns, was very dangerous to the vocal function. He admitted that the galvano-caustic method ought not to be used in the larynx as long as the same ends could be achieved by simpler methods, but maintained that in such cases as the two brought forward it was of the highest value, because it could not be replaced by any other method. On the whole he thought that no hard and fast rules could be laid down which should govern our decisions as to the choice of the method in every given case of laryngeal growths. Exclusive adherence to either side was to be deprecated, and he thought that the struggle between the partisans of the extra-laryngeal and endo-laryngeal methods might be settled with advantage to everyone concerned by the general adoption of the rule—"That no extra-laryngeal operation for the removal of benign growths should be performed unless an experienced laryngoscopist had unsuccessfully attempted endo-laryngeal removal." (Instruments, illustrations, and the second patient were shown.)

Dr. G. JOHNSON, who had seen the first case in an early stage, thought it, from the wide distribution of the growths, one of the most difficult to deal with he had ever met. When he saw the patient after treatment the voice was quite restored, and the only evidence of the malady which remained was a slight irregularity of one cord. He considered that operating from within was less dangerous than operating from the outside of the larynx.

Dr. DE HAVILLAND HALL remarked on the difficulty of dealing with numerous sessile outgrowths. In the second case recorded he had felt convinced that tracheotomy would be necessary owing to the great dyspnoea; but the removal of a small piece of the growth helped greatly to improve both speech and breathing. He congratulated Dr. Semon on his success, and hoped that such cases would encourage surgeons to operate through the natural openings.

Dr. DOUGLAS POWELL asked whether the action of the galvanic cautery had any power in causing absorption of the remaining parts.

Dr. SEMON said he was glad to be able to state that the introduction of the galvanic cautery into surgery was not due to Middeldorpf of Breslau, as was often said, but to their President, Mr. Marshall. The cautery caused no absorption; every bit had to be cleared away. It was an important question whether the frequent use of instruments, etc., did not tend to cause malignancy. A case of papilloma operated on fourteen years ago now showed signs of recurrence. This tended to show malignancy, and caution was required in any farther procedure. In another case he had been able greatly to relieve dyspnoea by the removal of a portion of the growth. His great object was to show that the endo-laryngeal method was applicable where it had been supposed to be useless.

THYROTOMY FOR REMOVAL OF FOREIGN BODIES IMPACTED IN THE INTERIOR OF THE THYROID CARTILAGE.

Mr. T. HOLMES read a paper on thyrotomy for the removal of foreign bodies impacted in the interior of the thyroid cartilage. The history of a case was related in which a large and rough piece of rabbit-bone was impacted in the neighbourhood of the left vocal cord for seven days before its removal. On the failure of attempts to extract it with the laryngeal forceps from the mouth, laryngo-tracheotomy was performed on the fifth day; and as the bone was still immovable, the thyroid cartilage was divided on the seventh day, when the piece of bone was at once extracted. The patient had suffered rather severely from inflammation of the mucous membrane of the larynx and trachea before the operation, and this did not subside after the operation, but spread gradually down to the lungs, until finally a gangrenous abscess formed in one lung, and the patient died nine weeks after the operation. Post-mortem examination showed evidences of intemperate habits, which were indeed also known from the patient's history. The voice had almost entirely returned before the patient's death, and the wound had con-

tracted to a very minute fistula. The parts concerned in the operation were exhibited, and showed hardly any unnatural appearances. There was slight ulceration of the left vocal cord, caused by the foreign body, and a very minute perforation still existing in the thyroid cartilage above the glottis; but the wound, which extended from the upper border of the pomum Adami to the second or third ring of the trachea, was represented only by a faint line of union, and the vocal cords showed no sign whatever of having been interfered with. The general subject of the indications for thyrotomy, the method of performing it, and its results, in cases of impacted foreign bodies, was discussed, and the following conclusions were arrived at:—1. Very large substances may be impacted, either in the ventricle or between the alæ of the thyroid cartilage, without causing any symptoms of immediate urgency. 2. When such substances are rough or pointed they sometimes give rise to a spreading inflammation of the mucous membrane, and in such cases should be removed as soon as possible. 3. If they can be seen and touched they can usually be removed from the mouth, either whole or piecemeal. 4. When this is found impossible without tracheotomy, an opening should be made through the crico-thyroid membrane and upper rings of the trachea. 5. After this operation it is quite possible that the spasmodic condition of the parts about the glottis may subside, and a renewed attempt at extraction be successful. 6. If this is impossible the foreign body may perhaps be either extracted or displaced from the tracheal wound, so that a preliminary tracheotomy is always advisable. 7. On the failure of such attempts the thyroid cartilage is to be laid open in the middle line—partially from below upwards if the body is small and can be felt lying near the wound; entirely and from above downwards if the body is large, firmly impacted, and lying out of reach from the tracheotomy wound. 8. The operation of thyrotomy involves little danger to life and not much to the integrity of the voice; at least, the risk of damage to the vocal cords is much greater from the protracted irritation of the foreign body than from the operation.

Mr. DURHAM had opened the larynx in two cases of impaction of foreign bodies; in both cases recovery followed. The first was that of a cherry-stone, which could not have been removed by the larynx; it was fixed between the true and false vocal cords, and enveloped in swollen tissue. In the second case the foreign body was a bone, which at first caused much dyspnoea, but this soon subsided; it could be seen by the laryngoscope, but was involved in much oedema. When the thyroid was opened the bone was found to be tightly wedged in. Thyrotomy was sometimes the best operation, but not always; it should only be employed when endo-laryngeal operations failed. The deaths after it had been due to disease, not to the thyrotomy. He did not like the term thyrotomy, as other structures than the thyroid cartilage were cut.

Mr. CROFT had successfully performed this operation once on a patient who had been in the hospital for three weeks, so that he did not think that the interval between impaction and operation could have been the cause of death in Mr. Holmes's case. The foreign body was a walnut-shell. Perhaps the abscess in the lung in Mr. Holmes's case might have been due to blood inhaled during the operation.

Mr. HOWARD MARSH mentioned the case of a child, where, after tracheotomy, he had been unable to remove the tube. He opened the larynx with no detriment to the child.

Dr. SEMON said that in some cases bad results were traced to the operation, which were really due to the presence of the foreign body. Thus, in Mr. Croft's case, the left thyroid was ankylosed and the right arytenoid dislocated—all evidently due to the effects of the foreign body.

Mr. HOLMES said that in his case the foreign body was very large—much larger than appeared by the laryngoscope,—so that it would have been quite impossible to remove it by the mouth. He thought death was due to inflammation which had begun in or around the trachea, and thence gradually spread downwards. The abscess was not caused by any accumulation of blood. He likewise thought that many of the evil results which had followed the operation were due to the foreign body, and not to the operation itself. In this case there was little or no deformity after operation, the vocal cords were in their normal relations, and the wound was hardly perceptible on the inner side of the larynx.

Mr. WATSON CHEYNE and Mr. E. M. NELSON exhibited

Dr. Koch's specimens of the Bacilli of Tubercle and other Pathogenic Bacteria.

Mr. HORSLEY showed some specimens of "Mechanical Mycosis," Biological Mycosis, and a common form of Organism found in Wound Discharges.

Mr. G. F. DOWDESWELL showed specimens of the Bacteria of Davaine's Septicæmia in the Blood of the Rabbit.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, MAY 1.

Mr. S. LEE RYMER, L.D.S., President, in the Chair.

AMONGST other casual communications, Mr. HENRY SEWILL brought forward a question as to the advisability of extracting the teeth of pregnant women. Such patients were constantly applying for relief, but when extraction was proposed—it being evident that the tooth was past saving—one was met with the answer that the patient's doctor did not consider that it would be safe for her to undergo the operation; so the patient continued to suffer, and her strength was reduced by the pain. His own opinion was that this was a sort of prejudice very much on a par with the idea that it was dangerous or wrong to extract a tooth during the acute stage of alveolar abscess; his practice was, during the early stages of pregnancy, to give gas and extract the tooth. In more advanced cases one must be guided somewhat by circumstances, but even in most of these he believed that extraction did no harm. Even if the patient was weak and nervous, the slight shock of the operation did less harm than the exhaustion produced by long-continued pain.

Messrs. F. CANTON and A. COLEMAN said they were frequently asked this question, and never hesitated to answer it in the affirmative. They preferred to give gas in such cases, and took care to give it thoroughly. They had never seen any harm result from the extraction of teeth under these circumstances.

Mr. GEORGE WALLIS said he never hesitated to operate when an operation was necessary. It happened on one occasion, in the case of a lady who was very near her time, that the child was born within twelve hours after the extraction; but she had been in great pain previous to the operation, and she had a much easier labour than she would have had with an aching tooth to add to her other troubles.

The paper of the evening was by Mr. STEELE, of Croydon, on "The Connexion between Mechanical Injury and Caries of the Teeth." Mr. Steele was of opinion that the influence of mechanical injury as a primary cause of caries had not received the attention which its importance deserved. Caries was probably due to an acid condition of the fluids of the mouth, causing decomposition of the earthy constituents of the dentine. So long as the enamel was perfect, it appeared that the dentine was safe from the ravages of this disease. But if it was imperfect, whether from congenital deficiency, or as the result of undue concussion, or from being unfairly used, the acid fluid obtained access to the dentine, and serious results followed. More pains should be taken to impress upon young people especially the importance of not abusing their teeth. They should be assured that in subjecting these organs, which appeared to them so hard and strong, to all sorts of rough treatment, they were laying up for themselves serious trouble in the future. He felt sure that the spread of a better knowledge of the evils of maltreatment, and the consequent exercise of greater care, would be followed by a perceptible diminution in the ravages of dental caries.

PREVENTION OF RECURRENCE OF PNEUMONIA.—Dr. Rhoads, in a paper read at the Kentucky State Medical Society (*Louisville Med. News*, May 13), states that he believes that recurring pneumonia is of much more frequent occurrence than is generally supposed. He also believes that iodide of potassium, given during convalescence, exerts much power in its prevention; and he has now employed it with satisfactory results for this purpose for several years. He prescribes iod. pot. ʒiv. , water ʒij. , compound syrup of sarsaparilla ʒiv. , giving a teaspoonful every four hours during convalescence.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology for the Fellowship of the College at the half-yearly meeting of the Board of Examiners on the 25th ult., and when eligible will be admitted to the Pass Examination, viz.:—

Blaxland, Walter, student of the London Hospital.
Blight, William Lyne, of Guy's Hospital.
Blomfield, James Edward, of University College Hospital.
Fowler, Walter, B.A. Oxon., of Guy's Hospital.
Jones, Frederick William Caton, of St. Bartholomew's Hospital.
Marriott, John, of the Charing-cross Hospital.
Paget, Stephen, B.A. Oxon., of St. Bartholomew's Hospital.
Swain, James, of the Westminster Hospital.
Vogan, James Norman, of St. Bartholomew's Hospital.
White, Sinclair, of the Galway and Sheffield Schools.

Seven candidates were rejected, making a total of forty-two out of the seventy-six candidates examined. With this meeting the examinations for the present session were brought to a close, with the exception of the final Fellowship examination, which terminated on Saturday evening last. The names of the successful candidates cannot be published until submitted to the Council for confirmation at its next meeting. We may, however, state that out of the seventeen candidates only four were rejected. At the corresponding period last year there were twenty-seven candidates, of which number ten were rejected.

The following were the questions on Pathology, Therapeutics, and Surgery submitted to candidates at the written examination on Thursday, the 25th ult., when they were required to answer them all between 1.30 and 5.30 p.m.:—

“1. Give an account of recent observations on the origin and mode of growth of cancer; especially in relation to the tissue of glands. 2. Discuss the causes of non-union of fractured bones, and mention the methods you would adopt to procure union. 3. Describe the characters presented by the vein on dissection in a case of acute phlebitis. Give an account of the course and effects of the disease. 4. Mention the various modes of relieving the bladder in retention of urine, and discuss their relative advantages and disadvantages.” As all the candidates had passed in Medicine, no separate paper on this subject was submitted to them.

The following were among the clinical cases, selected from the metropolitan and the “Seamen's” hospitals, on which the candidates were examined, viz.:—Ulcer of the foot; lipomata; facial exostosis; ichthyosis of the tongue, etc.; fungoid sebaceous cyst; dislocation of the elbow; frost-bites; diseased shoulder; injured elbow; tumour in the scrotum; diseased shoulder and tumour; hernia and swollen knee; calcified thyroid cyst; rodent ulcer; palmar ganglion; diseased knee; struma; chronic synovitis; syphilitic eruption; right inguinal hernia; recurrent cancer of the lip; old injury to the ankle; angular curvature and tuberculosis; tibial periostitis.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on May 25:—

Pocock, Alfred George Clarke, Coventry Park, Streatham.
Seon, Greville Ewing, Hamilton, Bermudas.
Thomas, John Henry, Tenby, South Wales.
Turner, Alfred James, Powerscourt-road, Lower Clapton.
Wise, Charles Henry, Prospect House, Launceston.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Harris, Frederick William, University College.
Hill, Thomas James Cooke, St. Bartholomew's Hospital.
Jago, Charles Sprague, Guy's Hospital.
Newton, Rupert William, St. Bartholomew's Hospital.
Woods, Everard, St. Bartholomew's Hospital.

APPOINTMENTS.

BROWN, HAIG C. W., M.R.C.S., L.S.A.—Assistant House-Physician to St. Thomas's Hospital.
COOPER, G. F., M.R.C.S., L.R.C.P.—Non-resident House-Physician to St. Thomas's Hospital.
DUNCAN, W. A., M.D., etc.—Assistant House-Surgeon to St. Thomas's Hospital.
WELLS, A. E., M.R.C.S., L.R.C.P.—Resident Accoucheur at St. Thomas's Hospital.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Deputy Inspector-General of Hospitals and Fleets John Cotton, M.D., has been placed on the retired list from the 18th inst., with permission to assume the rank and title of Inspector-General of Hospitals and Fleets.

BIRTHS.

CASSIDY.—On May 22, at the County Asylum, Lancaster, the wife of D. M. Cassidy, M.D., Medical Superintendent, of a son.
CONSTANT.—On May 25, at 8, Ferndale-park, Tunbridge Wells, the wife of Brigade-Surgeon F. G. Constant, M.D., late Bengal Medical Service, of a daughter.
COOK.—On May 25, the wife of Augustus Henry Cook, M.R.C.S., of 25, Denning-road, Hampstead, of a son.
JULER.—On May 24, at 77, Wimpole-street, Cavendish-square, W., the wife of Henry Juler, F.R.C.S., of a daughter.
O'NEILL.—On May 28, at 31, Brondesbury-road, the wife of J. G. O'Neill, M.B., of a daughter.
SCORESBY-JACKSON.—On May 20, at St. Hilda's, Walthamstow, the wife of T. Scoresby-Jackson, M.D., of a son.
TEALE.—On May 25, at 2, Belvoir-terrace, Scarborough, the wife of John W. Teale, F.R.C.S., of a son.

MARRIAGES.

BOUSFIELD-HENMAN.—On May 27, at Islip, Edward C. Bousfield, L.R.C.P., of Wellesley House, Ashley-road, Bristol, to Clara, daughter of the late David Henman, Esq., of the Grange, Bromham, Beds.
PULLEN-BURRY-ANWYL.—On May 17, at Balham, Henry Burry Pullen-Burry, L.R.C.P., M.R.C.S., of Baldock, Herts, to Rose, daughter of Thomas Anwyl, Esq., of Devonshire-road, Balham.

DEATHS.

COX, ALBERT GEORGE, M.R.C.S., at Crewkerne, Somersetshire, on May 25, aged 44.
KING, RICHARD, Staff-Surgeon R.N., late of Hamilton, Ontario, at 23, Warwick-street, Rugby, on May 27, aged 63.
WHITELEY, R. H., L.R.C.P., at Bath, on May 30.

VACANCIES.

CROYDON GENERAL HOSPITAL.—House-Surgeon. (For particulars see Advertisement.)

FLINTSHIRE DISPENSARY.—House-Surgeon. Candidates' names must appear upon the Medical Register as being possessed of medical and surgical qualifications; they must be acquainted with the Welsh language; and are prohibited from engaging in private practice. Applications, with testimonials of good moral character, etc., to be sent to the Hon. Sec., William Thos. Cole, on or before June 20. The election takes place on June 28.

GUEST HOSPITAL, DUDLEY.—Resident Medical Officer. Candidates must be Fellows or Members of the Royal College of Surgeons of England, Edinburgh, or Dublin, and possess a registered qualification in medicine, and be unmarried. Applications, with testimonials, to be sent to the Secretary, G. Poole, not later than June 9. The election takes place on June 20.

HALIFAX INFIRMARY.—Assistant House-Surgeon. Candidates must be doubly qualified and registered. Applications, with testimonials of ability and moral character, to be sent to the Senior Physician of the Medical Staff on or before June 20.

HULL GENERAL INFIRMARY.—Junior Assistant House-Surgeon. (For particulars see Advertisement.)

METROPOLITAN ASYLUM FOR IMBECILES, DARENTH, NEAR DARTFORD, KENT.—Assistant Medical Officer. (For particulars see Advertisement.)

SCARBOROUGH UNION.—District Medical Officer and Public Vaccinator. (For particulars see Advertisement.)

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Candidates must be surgically qualified, registered, and unmarried. Applications, stating age, etc., with testimonials, accompanied by diploma and certificate of registration, to be sent to the Hon. Sec., William Bache, Esq., Churchill House, West Bromwich, on or before June 6.

YORK COUNTY HOSPITAL.—Honorary Physician. Candidates must be graduates in medicine of one of the universities recognised by the Medical Council of the United Kingdom, and Fellows or Members of the Royal College of Physicians of London, or Fellows of the Royal College of Physicians of Edinburgh; they must not practise or be connected in partnership with anyone who practises surgery, pharmacy, or midwifery. Applications, with diplomas and testimonials, to be sent to the Secretary, Robert Holby, on or before June 24. Election on July 11.

UNION AND PAROCHIAL MEDICAL SERVICE.

RESIGNATIONS.

Bridgwater Union.—Mr. Richard Oxford has resigned the Third District and the Workhouse: area 9464; population 6090; salary £65 per annum. Salary for Workhouse £54 per annum.

Haltwhistle Union.—Dr. W. R. Speirs has resigned the Eastern District and the Workhouse: area 29,159; population 3161; salary £22 per annum. Salary for Workhouse £10 per annum.

Leeds Union.—The office of Assistant Medical Officer at the Workhouse is vacant by the resignation of Mr. R. T. Richardson: salary £100.

Scarborough Union.—Dr. W. T. Ramsey has resigned the Sherburn District: area 13,288; population 1443; salary £40 per annum.

Wellington (Salop) Union.—The Southern District is vacant by the death of Mr. R. P. Weston: area 4679; population 14,086; salary £100 per annum.

APPOINTMENTS.

Easingwold Union.—Edward M. Laffan, L.R.C.P. Edin., L.R.C.S. Edin., to the Coxwold District.

Hartismere Union.—Eustace Firth, M.B. and C.M. Edin., to the Rishangles District.

Hexham Union.—Charles James Connon, M.B. and C.M. Aber., to the Allenheads District.

Huddersfield Union.—Edward Fowler Scougal, M.B., C.M., and L.R.C.S. Edin., to the Fulstone District.

Maldon Union.—E. P. Gutteridge, M.R.C.S. Eng., L.S.A., to the St. Peter's District.

Taunton Union.—Wm. H. Davis, L.S.A., to the Churchstanton District.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 27, 1882.

BIRTHS.

Births of Boys, 1241; Girls, 1157; Total, 2401.
Corrected weekly average in the 10 years 1872-81, 2503·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	723	712	1435
Weekly average of the ten years 1872-81, corrected to increased population ...	783·5	698·9	1482·4
Deaths of people aged 80 and upwards ...	...	...	37

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	12	3	3	20	...	4	...	2	...
North ...	905947	2	6	5	1	33	...	7	...	3
Central ...	282238	...	1	1	2	6	...	1	2	...
East ...	692738	...	4	7	1	27	...	3	...	1
South ...	1265927	8	23	7	6	37	...	2	1	9
Total ...	3816483	10	46	23	13	123	...	17	3	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	29·559 in.
Mean temperature ...	...	...	...	...	57·6°
Highest point of thermometer ...	...	...	...	...	76·1°
Lowest point of thermometer ...	...	...	...	...	44·8°
Mean dew-point temperature ...	...	...	...	...	51·1°
General direction of wind ...	...	...	...	...	S.S.W., S.S.E., & E.
Whole amount of rain in the week ...	...	...	...	...	0·44 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 27, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending May 27.	Deaths Registered during the week ending May 27.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London ...	3893272	2401	1435	19·2	76·1	44·8	57·6	14·23	0·44	1·12
Brighton ...	109595	59	43	20·5	69·8	50·0	57·0	13·89	0·62	1·57
Portsmouth ...	129916	99	60	24·1	...	...	...	...	...	...
Norwich ...	83821	56	30	17·6	...	...	...	...	...	...
Plymouth ...	74449	42	24	16·8	65·8	49·0	55·4	13·00	0·65	1·65
Bristol ...	210134	127	82	20·4	67·8	44·2	54·2	12·33	1·25	3·17
Wolverhampton ...	76756	42	37	25·2	69·5	41·0	53·5	11·95	2·05	5·21
Birmingham ...	408532	305	153	19·5	...	...	...	...	...	...
Leicester ...	126275	76	50	20·7	70·2	40·2	54·4	12·44	0·88	2·24
Nottingham ...	193573	134	93	25·1	72·8	42·4	54·8	12·67	0·78	1·98
Derby ...	83587	58	28	17·5	...	...	...	...	...	...
Liverhead ...	86582	82	38	22·9	...	...	...	...	...	...
Liverpool ...	560377	400	274	25·5	71·0	47·5	55·3	12·95	0·51	1·30
Bolton ...	106767	71	57	27·9	68·7	41·0	52·3	11·28	1·03	2·62
Manchester ...	340211	210	178	27·3	...	...	...	...	...	...
Salford ...	184004	126	91	25·8	...	...	...	...	...	...
Oldham ...	115572	76	52	23·5	...	...	...	...	...	...
Blackburn ...	106460	78	47	23·0	...	...	...	...	...	...
Preston ...	97656	77	41	21·1	...	...	...	...	...	...
Huddersfield ...	83418	45	28	17·5	...	...	...	...	...	...
Halifax ...	74713	46	30	20·9	...	...	...	...	...	...
Bradford ...	200158	122	107	27·9	68·8	43·6	54·9	12·72	0·53	1·35
Leeds ...	315998	245	129	21·3	69·0	43·0	54·9	12·72	0·56	1·42
Sheffield ...	290516	211	129	23·2	68·0	41·0	55·1	12·84	0·77	1·96
Hull ...	158814	99	74	24·3	68·0	38·0	53·5	11·95	0·98	2·49
Sunderland ...	119065	112	52	22·8	73·0	45·0	54·8	12·67	0·60	1·52
Newcastle ...	147626	104	61	21·6	...	...	...	...	...	...
Cardiff ...	83724	72	29	17·4	...	...	...	...	...	...
For 28 towns ...	8469571	5575	3488	21·5	76·1	38·0	54·8	12·67	0·83	2·11
Edinburgh ...	232440	146	83	18·6	61·2	42·5	53·2	11·78	0·32	0·81
Glasgow ...	514048	365	272	27·6	66·5	39·5	53·6	12·01	0·72	1·83
Dublin ...	348293	203	165	24·7	67·6	41·2	55·3	12·95	1·20	3·05

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·56 in. The lowest reading was 29·15 in. on Thursday at noon, and the highest 29·97 in. by the end of the week.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Dr. G. Graham, Richmond, Victoria, Australia.—Letter and enclosure received.

An Old Member.—The following is a copy of the legal “form of bequest,” but it is a subject for your consideration whether the amount is to be left unconditional, to be spent in bricks and mortar, or for making additions to the library or museum, or for other scientific purposes. Sir Charles Blicke’s bequest to the library was only £300. “I bequeath to the Royal College of Surgeons of England the sum of £— : — : — (free of legacy duty); and I direct the same to be paid out of such part of my personal estate as is by law applicable to that purpose.”

Citizen.—The Governors of the City of London Lying-in Hospital will shortly hold a special court to consider a recommendation of the Committee, as advised by the medical staff, to pull down and rebuild the Hospital.

A Singular Legacy.—The well-known Parisian inventor of balloons, M. Giffard, who died some time ago, has left a legacy to the French Government, under most singular conditions. He desires that it be devoted to the establishment of *suicidaria*, or national institutions in which persons suffering from painful and incurable diseases may be allowed, by the use of chloroform and other such agents, to shorten their own existences, acting under the direction of medical experts, and with the consent of their friends. M. Giffard secured euthanasia for himself by a special apparatus he invented for the inhalation of chloroform.

Associate, King’s College.—Professor G. F. Yeo will commence his course of three lectures “On the Relation of Experimental Physiology to Practical Medicine” this day (Friday). The following is his syllabus of the lectures, viz.:—Lecture I. (Friday, June 2)—The Systems of Medicine not dependent on Physiology. Lecture II. (Monday, June 5)—The Growth of Physiological Knowledge. Lecture III. (Wednesday, June 7)—The Dependence of the Modern Rational Methods of Treatment upon a Knowledge of Physiology.

A Local Board for Rishton.—The Local Government Board have decided to accede to the proposal of the Blackburn Union Rural Sanitary Authority, that the township of Rishton shall be formed into a Local Government district, and that the necessary orders for the formation of a local board will shortly be issued.

Severe.—A hospital nurse being asked which was the most dangerous case in the ward, pointed to the surgeon’s case of instruments and said, “I think that one is.”

A Fellow by Examination.—We understand the annual notices for the election of Fellows into the Council of the College of Surgeons will be sent out this day. The first Thursday in July is the day fixed for the election. The Secretary will supply you with the blank forms.

The Bristol Medical School.—In the course of his address on presenting the prizes to the successful pupils of the Bristol Medical School, which is now in connexion with the local University College, Dr. Percival, President of Trinity College, Oxford, said that in recent primary examinations the School had passed 82 per cent. of its pupils, whilst Guy’s Hospital had passed 70, St. Bartholomew’s 60, London University 52, and Owens College, Manchester, 48 per cent.

New Lunatic Asylum, Glasgow.—At the first meeting, a few days since, of the recently elected Glasgow District Board of Lunacy, the question of the purchase of Eastshield as a site for the proposed new asylum was again discussed, and again deferred, to admit of the committee inspecting other properties available for the purpose.

Vaccination, Switzerland.—It may be remembered that the Swiss Federal Chambers passed, in January last, a vaccination law of a very stringent character; but, according to the Swiss Constitution, it appears the people have the right of appeal from the decisions of the Federal Chambers, provided 30,000 signatures are obtained to a requisition to that effect. Within the legal period allowed from the date of the promulgation of the law, not only have the 30,000 signatures been collected, but a surplus of 49,200—79,200 in all—have been procured. This requisition, though sufficiently signed, will have to undergo submission to the National Assembly, and upon the issue of the vote depends its fate. Had the measure related merely to vaccination it might, it is stated, have encountered little opposition, but being virtually a “Contagious Diseases Act,” it will probably be rejected.

Sour Wine and Electricity.—According to the Paris newspapers, a novel experiment has recently been made with wine at the entrepôt in that city. A current of electricity was passed through a small cask of sour wine, and at the end of a few days the wine was found to be greatly improved in quality, and to have acquired that flavour which has hitherto been supposed to come of age. It is said that the discovery of this new maturing process is owing to the accident of a thunder-storm having greatly improved a cask of bad wine in the cellars of a vintner at Carcassonne.

Unwholesome Meat: An Inspector Censured.—A widow has been fined £12 and costs, at the Lichfield Police-court, for having in her possession large quantities of beef, mutton, and veal which were unfit for human consumption. Her nephew, for aiding and abetting her, was ordered to pay a like fine; and a Birmingham meat inspector, who was called for the defence, and stated that the beef was fit for human food, was severely censured.

Past Favours not Forgotten.—A quack doctor, on his death-bed, willed his property to a lunatic asylum, giving as a reason for so doing that he wished his fortune to go to the liberal class who had patronised him.

Drunkenness in Working-Men's Clubs.—An inquiry was held by the Coroner at Burnley a few days since on the body of a young man aged twenty years. It appears that he went to the Albion Working-Men's Club at twelve o'clock at night, and remained there till six o'clock the following morning; that he had been drinking, and on leaving the Club fell down the stairs; was immediately carried home and attended by a doctor, but died three days after. The Coroner passed a very severe stricture upon the clubs of Burnley generally, and this one in particular, which he described as an accursed institution that ruined thousands of young men. The jury concurred with these observations, and returned a verdict of "Accidental death through falling whilst drunk."

White-lead Factories.—The Gateshead Guardians have had their attention called to the condition of *employés* in the white-lead factories of the neighbourhood—decrepitude, palsy, blindness, and even death being the frequent result of the lead-poisoning. They have resolved to memorialise the Home Secretary to institute an inquiry, with a view to the introduction of machinery for the most injurious parts of the work.

Middlesex Sanitary Inspectors.—The Middlesex magistrates have revised the scale of remuneration, fees, etc., of their inspectors under the Sale of Food and Drugs Acts, 1877 and 1879. The inspectors are to be paid a salary of £20 a year each, and a fee of 10s. upon each conviction, with the expenses upon the scale fixed by the Court on July 24, 1873. They have also ordered that it be intimated to the inspectors that they must submit a greater number of articles for analysis than heretofore, and generally display greater activity in performing their duties under the Acts. It is expected these changes in the rate and manner of remuneration will have the effect of inducing the inspectors to show greater vigilance in their work.

Infringing the Factory Acts.—A cotton manufacturer at Blackburn has been mulcted in penalties amounting to £23 10s. for employing twenty females and young persons beyond the legal working time. The inspector told the magistrate that overtime was common at many mills, but the defendant's mill was the most notorious for it in the district. He found thirty-nine females and young persons at work, but he had issued only twenty summonses.

The Preston Park Purchase and the Brighton Town Council.—The Town Council has ordered the Corporation seal to be affixed to the agreement with Mr. Bennett Stanford for the purchase of this park for £50,000.

London and Paris.—As it concerns all ratepayers alike, it may be noticed, the *City Press* says, that in view of a municipal government for London, we may compare the debt of Paris with that of our own metropolis. At the end of 1880 the Metropolitan Board of Works had contracted a debt of £12,400,000 in round numbers. The debt of the city of Paris is £60,542,000, and a further sum is about to be incurred of £10,029,200.

Medical Treatment by Druggists.—A Manchester coroner's jury respecting the death of a man aged sixty-two years, who had died of pneumonia, but who had obtained medicine from a firm of druggists, refusing to call in medical advice, added to their verdict of "Died from pneumonia aggravated by exposure and neglect of medical aid," that, in their opinion, druggists ought not to treat serious cases, but should refer them at once to qualified practitioners.

"First Aid" in Berlin.—A "Philanthropic Corps" has just been established by Herr von Madai, the President of the Berlin Police, composed of police officers and constables, a certain number of whom are chosen from the different police divisions. These members of the force are to attend weekly lectures at the Town Hall on the treatment of invalids and sick persons suffering from sudden illness or accidents. It is expected that shortly about three hundred constables will by these means obtain sufficient knowledge of medical science to treat sufferers before regular medical aid can be procured. Attention will especially be directed to the best means of restoring life to persons taken from the water.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Le Concours Médical—Ciencias Médicas—Morningside Mirror, March 15 and April 15—Detroit Lancet—National Anti-compulsory Vaccination Reporter—Great Northern Railway Panoramic Guide—Bootle Times, May 27—Nottingham Daily Guardian, May 22—Indian Medical Gazette—Maryland Medical Journal—La Independencia Médica—Medical News—Vaccination Inquirer—Edinburgh Medical Journal.

COMMUNICATIONS have been received from—

Dr. CREIGHTON, London; Mr. H. MORRIS, London; THE TOWN CLERK, Hastings; Dr. H. CRIPPS LAWRENCE, London; Dr. GILLESPIE, St. Thomas's Hospital, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE CAMBRIDGE MEDICAL SOCIETY, Cambridge; THE HONORARY SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY, London; THE EDITOR OF THE "DAGBLAD VON ZUIDHOLLAND," Hague; Dr. GILBERT BARLING, Birmingham; Dr. SONSINO, Cairo, Egypt; Surgeon-Major BAINES, M.D., London; Mr. HUGH OWEN THOMAS, Liverpool; THE LOCAL GOVERNMENT BOARD, London; THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD, London; Dr. GEORGE M. BEARD, New York; Mr. J. CHATTO, London; THE REGISTRAR-GENERAL FOR SCOTLAND; THE SECRETARY OF THE ODONTOLOGICAL SOCIETY, London; THE HONORARY SECRETARY OF THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, London; THE SECRETARY OF THE OBSTETRICAL SOCIETY, London; THE SECRETARY OF THE CHELSEA HOSPITAL FOR WOMEN, Chelsea; Mr. J. T. W. BACOT, Seaton, Devon; Dr. GEORGE JOHNSON, London; Mr. LINCOLN, London; THE SECRETARY OF THE SANITARY ASSURANCE ASSOCIATION, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; THE PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS, London; THE HONORARY SECRETARY OF THE ROYAL INSTITUTION, London.

BOOKS, ETC., RECEIVED—

The Treatment of Cancer of the Uterus, by W. H. Baker, M.D.—La Bourboule, by G. H. Brandt, M.D.—The Life and Work of St. Paul, part v.—Annual Report of the Newcastle Throat and Ear Hospital—Report of the Committee of the London Library—Medical and Surgical Reports of the City Hospital of the City of Boston, third series—Carotid Compression and Brain Rest, by J. Leonard Corning, M.D.

APPOINTMENTS FOR THE WEEK.

June 3. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Professor D. Masson, "On Poetry and its Literary Forms."

5. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Mr. Gerald Francis Yeo, "On the Relation of Experimental Physiology to Practical Medicine." Lecture II.
ROYAL INSTITUTION, 5 p.m. General Monthly Meeting.
ODONTOLOGICAL SOCIETY, 8 p.m. Papers by Mr. Hunt (of Yeovil) and Mr. Stevenson.

6. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
ROYAL INSTITUTION, 3 p.m. Professor A. Gamgee, "On Digestion."

7. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Mitchell Bruce.
ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Mr. Gerald Francis Yeo, "On the Relation of Experimental Physiology to Practical Medicine." Lecture III.
EPIDEMIOLOGICAL SOCIETY, 8 p.m. Annual Meeting: To elect office-bearers for the ensuing year. To receive the following reports from the Council:—A General Report on the State of the Society during the Session 1881-82. A Report recommending an alteration in the Laws of the Society. Dr. Arthur Ransome, "On the Form of an Epidemic Wave, and its probable Cause."
OBSTETRICAL SOCIETY, 8 p.m. Specimens will be shown by Mr. Alban Doran and Dr. Hopkins Walters. Adjourned discussion on Dr. J. Williams's paper "On the Natural History of Dysmenorrhœa." Dr. F. H. Champneys, "On an Obliquely Contracted Pelvis of Unilateral Synostosis." Dr. G. E. Herman, "On the Relation of Backward Displacements of the Uterus to Dysmenorrhœa."

8. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.
ROYAL INSTITUTION, 3 p.m. Professor Dewar, "On the Metals."
OPHTHALMOLOGICAL SOCIETY, 8½ p.m. Additional meeting for the discussion upon Sclerotomy. Living Specimens at eight o'clock.

9. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.
ROYAL INSTITUTION (Council Meeting, 8 p.m.), 9 p.m. Professor Burdon Sanderson, "On the Excitability of Plants."

ORIGINAL LECTURES.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

By DR. MCCALL ANDERSON,

Professor of Clinical Medicine in the University of Glasgow;
Physician to the Western Infirmary, and to the Special Wards for Diseases
of the Skin.

LECTURE IX.

B.—ORGANIC AFFECTIONS.

I.—THOSE DEFINED BY UNIFORM CAUSES.

1. Parasitic Affections of the Skin.

A.—Cutaneous Affections due to the presence of Vegetable
Parasites (*Dermatophyta*).ON THE NON-IDENTITY OF THE PARASITES MET WITH IN
FAVUS, TINEA TONSURANS, AND PITYRIASIS VERSICOLOR.

It is curious to note the variety of opinion which prevails amongst scientific men as regards many points relating to the so-called vegetable parasitic affections of the skin. Thus some, with Wilson at their head—whose opinions must always command respect(a)—hold that there are no such diseases, the plant-like structures met with in Favus, Ringworm, etc., not being fungous growths at all, but mere degenerations of the normal elements of the skin. Others, while admitting the presence of fungi in these diseases, hold that they are not essential, but accidental formations; and many are of opinion that they are not peculiar to them, but are met with more or less in almost all chronic skin diseases.(b) Then there are those, with Devergie for their leader,(c) who lean to the theory of spontaneous generation as applied to them; and lastly, the camp is pretty equally divided between those who believe that several fungous growths are concerned in the production of the parasitic affections of the skin, and those who maintain that they are due to the presence of one and the same parasite.

It has been urged by some, whose opinion I value, that, in the volume published by me some years ago on the parasitic affections of the skin, this last point should have been fully discussed; but it appears to me that, in a work intended as a guide to diagnosis and treatment, it would have been wrong to have entered into details on this head, except in so far as they were necessary to the practical elucidation of the subject. In the volume alluded to, however, I endeavoured to prove the correctness of Bazin's view, which was contrary to the belief of dermatologists in this country—that Herpes tonsurans (Ringworm of the head), Herpes circinatus (Ringworm of the body), and Sycosis parasitica (Ringworm of the beard), are all due to the presence of one and the same parasite, the *Tricophyton*; (d) and all my subsequent experience has tended to confirm the opinion which I then expressed—an opinion which, it is gratifying to observe, has been pretty generally accepted by the profession. There are not a few, however, who go farther than this, who hold that there is only one parasite productive of all the vegetable parasitic affections of the skin, amongst whom may be mentioned the names of Hebra, Tilbury Fox,(e) Lowe, and Jabez Hogg,(f) to whose writings I must refer the reader for the arguments in favour of such an opinion, as the following remarks are devoted almost exclusively to the arguments in favour of the opposite view.

But, before proceeding further, it may be well to state

(a) "On the Phytopathology of the Skin and Nosophyodermata, the so-called Parasitic Affections of the Skin" (*British and Foreign Medical-Chirurgical Review*, January, 1864). See also a pamphlet in answer to this paper, entitled "The Nature of the so-called Parasites of the Skin," by W. Tilbury Fox, M.D. 1864.

(b) See an article, by Mr. Jabez Hogg, in the *Lancet* for March 26, 1879.

(c) "Traité pratique des Maladies de la Peau," par Alph. Devergie, ed. ii., pages 51 et 501.

(d) "The Parasitic Affections of the Skin," by T. McCall Anderson, M.D., page 46. 1881.

(e) "Skin Diseases of Parasitic Origin," by W. Tilbury Fox, M.D., page 99, *et seq.*

(f) "Further Observations on the Vegetable Parasites, particularly those Infesting the Human Skin" (*Quarterly Journal of Microscopical Science*, January 1866, page 10), by Jabez Hogg, F.L.S., M.R.C.S., etc.

that, as there is a difference of opinion amongst those dermatologists who admit a group of parasitic affections of the skin, as to whether Alopecia areata (*Porrigio decalvans*) is a parasitic disease or not, it is advisable to leave that affection out of consideration in the present discussion, in order to avoid confusion. So that the task which I propose to myself now is to lay before my hearers the arguments in favour of the view that the *Tricophyton*, the parasite met with in the three varieties of Ringworm (*viz.*, Herpes tonsurans, Herpes circinatus, Sycosis parasitica), the *Achorion Schönleini*, the parasite of Favus, and the *Microsporon furfur*, the parasite of Pityriasis versicolor, are not identical, but distinct fungous growths.

First of all, let us view the proofs of non-identity, as these are displayed in the results of inoculation.

1. *Results of Inoculation with the Achorion Schönleini* (the Parasite of Favus).—This parasite has been repeatedly inoculated with success, and, amongst others, by Hebra, Bémak, Vogel, Bazin, Gruby, Köbner, and Deffis. Bennett thus describes a case in point:—

"In the summer of 1845 one of the gentlemen in attendance at the Royal Dispensary volunteered to permit his arm to be inoculated. A boy, called John B., aged eight, labouring under the disease (Favus), was at the time the subject of lecture, and a portion of the crust, taken directly from this boy's head, was rubbed upon Mr. M.'s arm, so as to produce erythematous redness, and to raise the epidermis. Portions of the crust were then fastened on the part by strips of adhesive plaster. The results were regularly examined at the meetings of the class every Tuesday and Friday. The friction produced considerable soreness, and, in a few places, superficial suppuration. Three weeks, however, elapsed, and there was no appearance of Favus. At this time there still remained on the arm a superficial open sore, about the size of a pea, and Mr. M. suggested that a portion of the crust should be fastened directly on the sore. This was done, and the whole covered by a circular piece of adhesive plaster, about the size of a crown-piece. In a few days the skin surrounding the inoculated part appeared red, indurated, and covered with epidermic scales. In ten days there were first perceived upon it minute bright yellow-coloured spots, which, on examination with a lens, were at once recognised to be spots of Favus. On examination with the microscope, they were found to be composed of minute granular matter, in which a few of the cryptogamic jointed tubes could be perceived. In three days more the yellow spots assumed a distinct cupped shape, perforated by a hair; and in addition to tubes, numerous sporules could be detected."(g)

Of three cases inoculated by Deffis, the epidermic variety of Favus—the crusts exhibiting the *Achorion* microscopically—was produced twice, and a typical favus cup once, and the average period of incubation was ascertained to be about forty days. The true favus cups are only formed when, by inoculation, some of the fungus can be brought into contact with a hair-follicle; hence the epidermic variety is more frequently produced. Köbner inoculated himself on the forearm with the parasite of Favus, and there resulted well-marked favus cups,(h) which he exhibited at the Medical Society at Breslau. Gruby also tried the effects of inoculation. He deposited some of the fungus on the bark of an oak in full vegetation, and there developed itself a favus cup identical with that which grows on the head of infants, and which was exhibited at the French Institute.(i)

2. *Results of Inoculation with the Tricophyton* (the Parasite of Tinea tonsurans, or Ringworm).—The experiments with this parasite have been on a much less extensive scale than those with the *Achorion*, but, as far as they go, they lead to the same conclusion. Thus, M. Deffis, encouraged by the success of his inoculations with Favus matter, essayed some inoculations with the *Tricophyton* in 1856, in which he was completely successful, characteristic patches of Ringworm being produced; and similar inoculations were made with the *Tricophyton* by Köbner on his own and on Dr. Strube's forearm, and also upon rabbits, which resulted likewise in the development of Ringworm.(k)

3. *Results of Inoculation with the Microsporon furfur* (the

(g) "Clinical Lectures on the Principles and Practice of Medicine," by J. Hughes Bennett, M.D., ed. ii., page 799.

(h) "Klinische und Experimentelle Mittheilungen aus der Dermatologie und Syphilidologie," von Dr. Heinrich Köbner, Arzt in Breslau, page 21. Erlangen, 1864.

(i) *Loc. cit.*, page 526.

(k) *Loc. cit.*, page 23.

Parasite of Pityriasis versicolor).—The inoculation of the *Microsporon furfur* has not, as far as I am aware, been attempted, or at all events the results have not been communicated by anyone, except by Dr. Heinrich Köbner, who inoculated himself with it upon the skin covering the sternum, and produced an eruption of Pityriasis versicolor.⁽¹⁾

Now, of all the inoculations which have been made upon man, animals, or plants, with the *Achorion*, the *Tricophyton*, and the *Microsporon furfur*, many, of course (owing to defective inoculation, unsuitableness of soil, or the like), have proved abortive; but I think I am equally correct in stating that, amongst the many cases of successful inoculation, not a single one has resulted in the production of any other parasitic disease than that from which the parasite was taken. In other words, when the inoculations were successful the *Achorion* always gave rise to Favus, the *Tricophyton* to Tinea tonsurans, and the *Microsporon furfur* to Pityriasis versicolor.

So much, then, for the results of inoculation.

In the second place, let us glance at the *clinical proofs* of the non-identity of these parasites.

There are very few dermatologists of note who now deny the contagious nature of Favus, Tinea tonsurans, and Pityriasis versicolor. Amongst the 1300 cases of parasitic affections of the skin treated at the Dispensary for Skin Diseases, Glasgow, during the last four years, there were numerous examples of this; but there was not a single instance of one of those diseases giving rise, by contagion, to one of the others. And this is just what one would have expected, seeing that artificial inoculations point so conclusively the same way. And here it must be mentioned that those who are not well versed in the diagnosis of skin-diseases are apt to fall into the error of confounding the appearances of the first stage of Favus with fully developed Ringworm, and thus to arrive at the opinion that these two diseases are present on the skin at the same time. That there are instances of the coincidence of Ringworm and Favus on the same person at one time—a delineation of which is published by Hebra—no one can deny, but it is equally certain that they are very rare, for I have never met with a single case of the kind; so that they no more constitute proofs of the identity of these diseases than do instances of the coexistence of Psoriasis and Ringworm—a case of which I met with the other day—of the identity of these two affections. Then, if we study the appearances of fully developed Favus, Tinea tonsurans, and Pityriasis versicolor, it would be difficult to name any three skin-diseases which are more dissimilar; and this I may say with the greatest confidence, that I have never seen a transition of one of these diseases into one of the others. It is but fair, however, to state that my experience differs in this respect from that of Dr. Tilbury Fox, who makes the following remarks:—

"Tinea Favosa (favus) can be produced from bad cases of Tinea tonsurans, on a minor scale, by keeping up such an amount of irritation as, being less than sufficient to destroy the fungus, shall lead to the effusion of blastematos fluid (be it pustular, vesicular, or other), in which the plant will vegetate rapidly for a while, producing a crust depressed in its central part, and completely riddled by hairs in various stages of disease; the crust itself being composed of the normal elements of the part, effused fluid, and parasitic growth."^(m)

As I have just said, this state of matters is totally at variance with my own experience, and I cannot help suspecting that some error has crept into the inquiry.

In the third place, let us view for a moment the proofs derived from a *microscopic examination*, which I hold, however, to be of very secondary importance, and which cannot have nearly the same weight as several of those previously advanced, for in structures so minute it is difficult, even with all the light which is shed upon them by the most perfect instruments, to appreciate with precision the differences which may exist between them. And yet, as far as my experience goes, the differences between the microscopical appearances of the *Achorion*, the *Tricophyton*, and *Microsporon furfur*, are very considerable. Thus, to take an instance derived from the spores: those of the *Achorion* are, on an average, about the 3000th of an inch in diameter, and many of them are oval; those of the *Tricophyton*, on the

other hand, are much smaller, being, on an average, about the 7000th of an inch in diameter; while the spores of the *Microsporon furfur*, although nearly as large as those of the *Achorion*, are more uniformly rounded, and have a remarkable and characteristic tendency to run together, so as to form clusters, like bunches of grapes. Other differences in the microscopical appearances I might mention, which must be familiar to those who have carefully studied the subject of parasitic diseases of the skin with the microscope. But it is unnecessary to enlarge further on this subject, holding, as I do, that the proofs derived from a microscopical examination are of secondary value in the determination of the point at issue; and I conclude with the observation that if carefully prepared microscopical specimens of the *Achorion*, the *Tricophyton*, and the *Microsporon furfur*, and of these only, were handed to me, and I were allowed to use my own microscope, I think I could generally arrive at a correct diagnosis of the disease from the microscopical appearances alone.

Curiously enough, it was only yesterday that my friend Dr. Irvine handed to me a paper containing some epithelial scales and fine hairs, with the request that I should examine them with the microscope, and give him my opinion of the nature of the skin-disease from which they were taken. This I did, and pronounced it to be a case of Pityriasis versicolor—an opinion which proved correct. This fact is cited, not to show that I am possessed of any extra skill in the use of the microscope, but merely in verification of the above statement.

Lastly, we come to the proofs derived from a branch of inquiry in which I have for some time been deeply interested—namely, *the occurrence of vegetable parasitic skin-diseases amongst the lower animals, and their transmission to the human subject*. And first of all, as regards Favus, I may be allowed to transcribe the following case from a previous communication, a case which was first published by Bazin.⁽ⁿ⁾

"In the course of the year 1854 several members of a family, amongst whom was a young physician, remarked that several mice, caught in a trap, were affected with a peculiar disease. Upon the head and front legs there were crusts of a sombre yellow tint, of a regularly circular form, and more or less elevated above the level of the neighbouring healthy parts. A manifest depression was likewise detected in the centre of each crust, just as one observes in *Porrigo favosa*, and the parts where these had fallen off were ulcerated, and the skin appeared to be destroyed throughout its whole thickness. These mice were given to a cat, which exhibited some time afterwards, above the eye, a crust similar to those on the mice. Later still, two young children of the family, who played with the cat, were successively affected with the same disease, yellow crusts making their appearance on several parts of the body, on the shoulder, face, and thigh. The physician who was summoned pronounced them to be cases of *Porrigo favosa*."

Some of the fragments were sent to Bazin, who detected the parasite with its characters well marked.

The following cases, which came under my own observation, are of much interest:—

A patient of my late colleague's, who lived in lodgings in a newly built house in the West-end of Glasgow, showed him his dog, upon whose fore-paw a peculiar disease existed. Dr. Buchanan examined the patch, and found that it corresponded in every particular with a patch of Favus—an opinion which was amply corroborated by a microscopic examination of a portion of the crusts. This dog was in the habit of killing mice, which abounded in the house, some of which were accordingly caught and examined by Dr. B. and myself. We had no hesitation in pronouncing the disease to be Favus, and a microscopic examination showed distinctly the presence of the *Achorion Schönleinii*.

This disease in mice has a special tendency to attack the ears, and from thence it spreads to the head and throat, and to other parts. It produces much greater destruction than in the human subject, as it not only destroys the hair, but tends to eat into the deeper structures, and by slow degrees leads to exhaustion and death. One of the mice above referred to was stuffed, and is preserved at the Dispensary for Skin Diseases, Glasgow, where those interested may have an opportunity of studying the appearances and of

(1) *Loc. cit.*, page 24.

(m) *Lancet*, September 10, 1859.

(n) "Leçons Théoriques et Cliniques sur les Affections Cutanées Parasitaires," par le Docteur Bazin, page 119. 1858.

verifying the conclusions to which we arrived with regard to the nature of the disease. The complaint in mice had at this time attracted the attention of non-professional persons in Glasgow, as was evidenced by a correspondence in the columns of the *Glasgow Herald*, the writers having all seen in their houses mice so affected, and having been much alarmed lest they might be the means of poisoning the food or water, or of transmitting the disease to members of their family. No instance, however, was cited in which this had occurred. A still more interesting case occurred shortly afterwards in my own practice. A poor woman came to the Dispensary for Skin Diseases on February 1, 1864, accompanied by one of her children. They were both affected with Favus of the non-hairy parts of the body. On each there were scattered here and there characteristic little round patches of eruption, on some of which numerous minute favus cups were detected, exhibiting the *Achorion Schönleini* microscopically. Two other children of this woman, as also their father, were similarly affected. Mice abounded in the house some time previous to this, and a cat was accordingly procured, which killed all of them. I had therefore no opportunity of examining them, but the cat was brought to me, and on the tops of its fore-paws I detected numerous undoubted favus cups.

The next case, which is equally interesting, came under my notice a few days after the last. On February 22, 1864, I was asked by Mr. Thomas Bryce, surgeon, to visit along with him a family which he was attending. A number of mice had been caught in the house three months previous to this date, which had been much handled by the children. Five weeks afterwards an eruption was noticed on one of the little girls, which spread to one of the sisters, her mother, the baby, and a little girl who worked in the establishment. On examining the eruption, which was confined to the non-hairy parts, it was found to correspond exactly with the appearances in the previous case. On some of the patches distinct favus cups were seen, which exhibited the *Achorion* microscopically, and on those which were devoid of them the eruption corresponded to the variety described in my volume on the Parasitic Affections of the Skin as "Favus of the epidermis," and the scales were loaded with the spores and tubes of the parasite. There were no mice in the traps at the time, but shortly after my visit Dr. Bryce kindly sent me five, on the back of one of which near the tail a characteristic favus cup was seen, while the side and lateral aspect of the head and ears of another were eaten away by the disease. The crusts were examined with the microscope, and the *Achorion* was detected in great abundance. Dr. Bryce informed me that the mice sent to me exhibited the same appearance as those with which the children had been playing.

But Favus is not limited to cats and mice, for we read that Müller observed it in a Cochin-China fowl and in several chickens which had contracted it from the fowl; that Gerlach observed its transmission from fowls to the human subject, (o) and that Köbner succeeded in producing Favus in rabbits by inoculating them with the *Achorion* taken from the human subject; and there can be little doubt that as the question becomes more thoroughly ventilated, this disease will be found to be much more generally diffused amongst the lower animals than many suppose.

Now, in all these cases Favus transmitted Favus, and I have never read of, still less have I ever observed, any case in which either *Tinea tonsurans* or *Pityriasis versicolor* was the result.

Let us now glance for a moment at the occurrence of *Tinea tonsurans* (Ringworm) amongst the lower animals, in order to see if it gives us any information upon the point at issue.

In a paper on "Parasitic Skin Diseases in the Ox," by Gerlach, Professor at the Royal Veterinary School of Berlin, the author gives an account of Ringworm in oxen. Having remarked that oxen which were put into the same stable with affected ones contracted the same disease, he determined to perform some experiments with the view of ascertaining whether it really was communicable to other animals. By successive inoculations he succeeded in the production of Ringworm in oxen, in calves, and in horses, while his experiments in the case of pigs and sheep yielded a negative result. He likewise inoculated his own arm and those of some

of the pupils with some of the parasitic matter from oxen, and in each case there resulted well-marked *Herpes circinatus* (Ringworm of the body).

Bärensprung's experience coincides with that of Gerlach. He rubbed on his forearm some scales containing an abundance of the spores and mycelium of the *Tricophyton* taken from a case of Ringworm in one of the lower animals. No effect was produced for the first few days, but after a longer interval his attention was attracted to the part by the superintention of itching, when he discovered a well-marked patch of *Herpes circinatus* (Ringworm of the body). (p) It is unnecessary to multiply cases of this kind, so that I may conclude with a case extracted from the volume published by me on the "Parasitic Affections of the Skin," and quoted from Bazin:—

"A dragoon came to the dispensary of the St. Louis Hospital, affected with *Herpes circinatus* of the front of the right forearm; the skin of one of the patches was denuded of hair. He stated that five or six of his comrades had contracted this affection, as well as himself, from grooming diseased horses. We went to the barracks, where, sure enough, we saw three horses which exhibited round patches, absolutely identical with those of *Herpes tonsurans* (Ringworm of the head) on the withers, shoulders, back, and belly. The hairs in the centre of each patch were broken off close to the skin, and there was, as in *Herpes tonsurans*, a whitish, squamous, and even crust-like production which was traversed by the hairs. The presence of spores was detected with the microscope. The dragoon, who conducted us to see the horses, showed us also his young daughter, eight or ten years of age, the side of whose nose exhibited a patch of *Herpes circinatus*."

We see, then, that as in the previous cases Favus invariably transmitted Favus, so in this *Tinea tonsurans* invariably gave rise to *Tinea tonsurans*.

I believe I am correct in stating that *Pityriasis versicolor* has not been observed in the lower animals.

The following is a summary of the proofs adduced in favour of the non-identity of the *Achorion Schönleini*, the *Tricophyton*, and the *Microsporon furfur*, the parasites met with in Favus, *Tinea tonsurans*, and *Pityriasis versicolor* respectively:—

1. In all cases of successful inoculation with the *Achorion*, *Tricophyton*, and *Microsporon furfur*, the same parasitic disease has been produced as that from which the parasite was taken.

2. Of the innumerable cases occurring in the human subject illustrative of the contagious nature of Favus, *Tinea tonsurans*, and *Pityriasis versicolor*, which have been recorded, there is no authentic case in which one of these diseases gave rise to one of the others.

3. The difference in the appearance of Favus, *Tinea tonsurans*, and *Pityriasis versicolor*, when fully developed, is so very striking as to lead to the belief that they are produced by separate parasites.

4. There is no authentic instance on record of the transition of one of these diseases into one of the others.

5. The difference in the appearance of the *Achorion*, *Tricophyton*, and *Microsporon furfur* is sufficiently striking to enable the observer in many cases to form a correct diagnosis from the microscopic examination alone.

6. Of the numerous instances on record of the transmission of Favus and *Tinea tonsurans* from the lower animals by contagion or inoculation, Favus has always given rise to Favus, and *Tinea tonsurans* to *Tinea tonsurans*.

Before taking leave of this subject, it may be well to refer to the opinion of Dr. John Lowe and others, that not only are the parasites in question identical, but also that they are one and the same with the *Aspergillus glaucus*. In confirmation of this view Dr. Lowe states, amongst other observations, that he placed in a bottle, exposed to a moderately cool atmosphere, a solution of brown sugar and some Favus matter. In rather more than a month the *Aspergillus glaucus* was detected in the solution, having been apparently developed from the Favus matter. Dr. Lowe seems to have repeated the experiment several times with a like result. It must be remembered, however, that there are many sources of fallacy in experiments of this kind, and I am entirely at one with Dr. Lowe in the following remarks:—

(p) Quoted by Aitken, from *British and Foreign Medico-Chirurgical Review*, July, 1857, page 263.

"In an investigation of this nature, where the objects to be examined are so minute, a considerable degree of difficulty is naturally experienced in affording satisfactory proof of the accuracy of the remarks concerning their development. For instance, in watching the germination of any given fungus, it may often be difficult to prove that no other plant of the same tribe is present to complicate the result; and this in consequence of the myriads of spores of various species which are constantly floating about in the atmosphere, ready to become located, and grow upon any suitable pabulum." (q)

Moreover, similar experiments were conducted by Rémak, who did not arrive at any definite conclusion; while Köbner subjected the point to a more practical and satisfactory test by inoculating himself, Strube, and others, repeatedly with the *Penicillium glaucum*, using the same precautions as in the experiments previously alluded to, but without the slightest result. Now, if the *Penicillium glaucum* were identical with the parasites of Favus, Ringworm, and Pityriasis versicolor, one would naturally have expected that he would have been as successful with it as he was in his inoculations with the *Achorion Schönleini*, the *Tricophyton*, and the *Microsporon furfur*. So that, while no one can withhold from Dr. Lowe the credit which is due to him for the interesting experiments which he has carried out, and for the scientific manner in which he has conducted them, I think it must be conceded that further proof is required before we can admit that the parasites productive of Favus, Tinea tonsurans, and Pityriasis versicolor are identical with the *Aspergillus glaucus*.

ORIGINAL COMMUNICATIONS.

ON THE ESTABLISHMENT OF A HOSPITAL AT NICE FOR THE RECEPTION OF CASES OF CONTAGIOUS FEVERS OCCURRING AMONG VISITORS STAYING AT THE HOTELS. (r)

By CHARLES WEST, M.D., F.R.C.P.L.,

Corresponding Member of the Académie Nationale de Médecine of Paris.

MY two years' residence and exercise of my profession at Nice have made me familiar with two great wants in that city, both of which I hope to be able to do something to supply. The first, the want of competent nurses, does not concern this Society. I may perhaps, however, be permitted to mention that, at my request, the lady who founded the Institution for English Hospital-Trained Nurses in Paris is about to establish a branch of it at Nice.

The second want consists in the absence of any arrangement for the isolation of cases of contagious fever occurring among the visitors to hotels—an evil which Nice shares in common with all other continental towns. The evil is, however, the more serious in places which are the resort of invalids, and the panic excited in an hotel when any case of fever is known to occur is proportionately great.

The result of all is that the hotel-keepers endeavour to compel any fever patient at once to quit the hotel; and that, on the other hand, the patient's friends, unless extremely wealthy, find it almost impossible to obtain a suitable lodging elsewhere. Hence there is constant delay in the removal of such cases from the hotels. The proprietors are led in their own interest to deny as long as possible the existence of such disease, and the doctors themselves to conceal it; while the ordinary sanitary precautions which might otherwise be adopted cannot be taken for fear of betraying the secret; and a single case of fever thus too often becomes the focus of a wide-spreading infection. If, from utter inability to find accommodation elsewhere, the patient remains in the hotel, he is of necessity but ill tended. The doctor makes his visits, as it were by stealth; there are difficulties in the accommodation of the nurse; difficulties in obtaining the exceptional diet necessary; difficulties if the illness becomes perilous; difficulties if death takes place; nor much smaller if with returning convalescence the patient goes out for the sake of fresh air before he has regained strength.

To meet these evils I proposed to the Medical Society of

Nice, and afterwards to the syndicate of hotel proprietors—both of which bodies, I am glad to say, unanimously adopted the proposal—to erect in a suitable position, close to Nice, a building capable, in the first instance, of receiving twelve patients. The cost of this building and of its site, while partly met by voluntary contributions, would have to be chiefly provided by subscriptions from the hotel-keepers and others directly interested in the prosperity of Nice, since the Municipality has no power to impose a tax either on the inhabitants or on the visitors for such a purpose.

While an intelligent perception of their own interest as bound up with the reputation of the city might induce some persons to make a large present pecuniary sacrifice, it was evident that with the majority that motive would not suffice. I therefore suggested that the hotel-keepers should agree among themselves to request a donation of one franc towards this purpose from each visitor for the whole period of his stay at the hotel; and since more than 50,000 travellers visit the hotels annually, a sum of at least £2000 would thus be realised every year.

The cost of the building was roughly estimated by an architect at £7000. The value of land varies greatly at different places in the vicinity of Nice, but may probably be taken at about £8000 for a suitable site. If, however, all expenses together amounted to £20,000, the travellers' contributions would suffice to pay 5 per cent. on the money advanced, and at the same time to reduce the debt by £1000 annually.

It is proposed that all persons suffering from contagious fever in the hotels may be admitted on their own application, on that of their medical attendant, or of the proprietor of the hotel in which they are staying; that they shall have the free choice of their own doctor and nurse, whose expenses will be at their charge; that in place of, or in addition to, their nurse they may have one member of their family with them; and that in addition to the cost of their food they pay a certain sum weekly as rent for their rooms in the institution.

It is proposed that its management be vested in a committee formed of two members of the Municipality, in addition to the Mayor and Préfet as *ex officio* members; five proprietors of hotels; one foreign and one French doctor elected annually by the shareholders or by the hotel proprietors. It is further proposed that when the site of the building and its construction have been paid for, and the maintenance of the institution likewise provided for, all surplus money shall be devoted each year to the establishment and maintenance of a home for trained nurses.

I have sketched a plan embodying my ideas of how this building may be best arranged; and I submit it to this meeting in the earnest hope that I may be helped to improve it by some of those gentlemen here who have devoted so much time and thought to kindred subjects. All will agree that the building must be specially constructed for the purpose.

I propose that it should consist of a basement, a ground floor, and a first floor; and this not simply as a matter of economy in construction, but as affording greater facilities for the isolation of the more contagious diseases, such as small-pox, measles, and scarlatina, from typhoid fever, which is both less dangerous and less contagious. It should comprise two wings, and a central block for the administration, from which the wings are separated by a court or garden, and with which they communicate by a corridor. All rooms should face south, and communicate with the central block by the corridor at the north. There should be two communicating rooms for each patient and the nurse, with water-closet and a slop sink at the opposite side of the corridor. There should be three sets of rooms on the ground and first floors of each wing; and the corridor of each floor should end in two rooms, the one a ward-kitchen, the other a bath-room. The kitchen, cellar, etc., would occupy the basement. There should also be a mortuary, a laundry, a disinfecting chamber, and a stable and coach-house in the grounds, the latter providing for the transport of contagious cases from the hotels. The patients' rooms to be 4 metres wide by 5 long, by 4 high; their cubic contents 80 cubic metres, or about 2200 feet.

WARNEFORD HOSPITAL.—At a Court of the Governors of the Warneford, Leamington, and South Warwickshire Hospital, held on Wednesday, 17th inst., Thos. W. Thursfield, M.D., M.R.C.P. Lond., was elected an Honorary Physician to the Hospital, *vice* Henry Homer, M.D., deceased.

(q) *Transactions of the Botanical Society*, vol. v., part 3, page 193.
(r) A paper read before the Society of Medical Officers of Health on May 19, 1882.

ON A NEW KIND OF URETHRAL SYRINGE.

By BALMANNO SQUIRE, M.B. Lond.,

Senior Surgeon to the British Hospital for Diseases of the Skin.

It may be safely said that the form of urethral syringe which is still in most common use, is that which may be described as the glass piston-syringe, having a roll of cotton-thread round its piston to act as sucker, and having a knob at the end of the piston-rod by which the latter is worked.

The inconveniences of the common glass piston-syringe, although they do not need to be insisted on, may be briefly enumerated. The sucker always leaks considerably, often so much so as to render the syringe quite useless; at other times it fits so tightly that the syringe can scarcely be worked, or if workable by extra force, then the piston hanging fire up to a certain point, suddenly yields with a jerk, and acts with harmful force.

Then, even when, as rarely happens, the syringe can be got to work properly, it still remains comparatively useless, for inasmuch as one of the patient's hands requires to be engaged in closing the mouth of the urethra around the nozzle to prevent the escape of the injection, he has only one hand left free with which to hold and work the syringe—a feat most difficult to accomplish. He starts, of course, with the syringe filled, and consequently with the piston drawn out to the full; this is always necessary, in order to allow for the copious leakage past the piston which invariably occurs as the piston is driven down. If he has very long fingers he can just contrive to get an insecure hold of the extreme butt of the syringe with the tips of his thumb and middle finger, while the tip of his forefinger barely gains the top of the glass knob at the end of the piston. At last, if he succeeds in this somewhat difficult manœuvre, he manages to inject some of the solution into his urethra, and some into his bladder—the portion that the urethra receives containing a considerable admixture of air-bubbles, which the leaky piston has allowed during the filling of the syringe. Now, these air-bubbles, as Professor Zeissl has recently pointed out, are extremely prejudicial to an inflamed urethra. (The entry of the injection into the bladder is an obvious disadvantage.) The end of the forefinger, moreover, is very apt to slip off the glass knob during the act of pushing down the piston, thus suddenly jerking the nozzle of the syringe sideways in the tender and inflamed urethra.

Sometime ago, Sir Henry Thompson endeavoured to obviate some of these disadvantages by having the syringe made shorter than is usual, and by providing the end of the piston-rod with a glass ring for the forefinger instead of the usual knob.

More recently, Mr. Berkeley Hill devised an ingenious contrivance in which a fixed diaphragm of india-rubber took the place of the always unmanageable piston, and he placed this diaphragm well within reach of the forefinger. His contrivance was thus—the glass nozzle, instead of leading to the bottom of a long glass cylinder, led to the bottom of a glass cup; over the open mouth of this cup a piece of sheet india-rubber was tied by means of a wire passing round the edge of the cup. The pressure of the forefinger on the centre of the rubber diaphragm would, in some degree, empty or fill the cup, accordingly as the finger was depressed or raised, the apparatus being held by grasping the nozzle with the tips of the thumb and middle finger. This apparatus, however, had its disadvantages. It had very little “working capacity,” inasmuch as, owing to the necessarily tense condition of the rubber diaphragm, its circumferential and chief portion did not move in the least, but only the central portion of it, so that the action of the finger on it produced a very limited sort of hernia, the finger only carrying down a kind of pouch or temporary finger-stall of rubber with it, or certainly very little more than this; this extreme stretching of the central part soon rendering the diaphragm useless.

Leaving, then, these improvements on the glass syringe, I come to the only rival that it can really be said to have, and that is the india-rubber ball-syringe, fitted with an ivory—or, more recently, a glass—nozzle, and which is, in some respects, better than any of the preceding.

All of these, however, have certain disadvantages in common, namely, that some of the injection is extremely likely to enter the bladder, and that air is apt to be injected

into the urethra; and furthermore, that all of these syringes are more or less unportable. Sir Henry Thompson's syringe has, of course, the disadvantages which I have already referred to as inseparable from the use of a piston with a cotton-thread sucker. Mr. Hill's syringe, in addition to its other drawback, is remarkably unportable; while the rubber ball-syringe has an extremely inconvenient peculiarity, namely, that when compressed laterally one side only yields, and thereby the nozzle becomes painfully tilted to one side in the urethra.

I pass over those forms of urethral syringe which involve the introduction right down the urethra of a long nozzle having a terminal knob, and which are designed to wash out the urethra (so to speak) from behind, because I doubt if such hard usage is really beneficial to an inflamed urethra, and doubt also if tenacious muco-pus can be so readily detached from its mucous membrane, and further doubt whether it be an advantage to detach it even if that could be done.

In occupying myself with an attempt to design a model syringe, it appeared to me that the conditions to be aimed at were these:—

That it should be capable of being held, and at the same time conveniently worked, with one hand.

That it should have full “working capacity.”

That it should work easily and without hitch.

That it should be impossible for it to get out of order, and equally impossible for it to break.

That there should be no liability of the nozzle to become accidentally tilted or jerked, or pressed upon or displaced, during the use of the syringe.

That it should be impossible for the syringe to send any injection into the bladder, or equally any air into the urethra.

That it should be very portable—that is to say, of small size and flat shape, going easily into the waistcoat pocket if possible.

That it should be capable of carrying in a safe manner a supply of liquid enough for one injection.

Now, all of these conditions are fulfilled in the device I have contrived, and which is figured in the illustration



(taken from a photograph), where, however, it is not represented of full size, the syringe being really four inches long over all, whereas in the illustration it is only two inches and three-quarters long. The upper of the two woodcuts shows a nearly full-faced view, while the lower one shows nearly a side or edge-view. The syringe consists of an india-rubber body, from one end of which proceeds an india-rubber tube, terminated by a glass nozzle. The body is of an elliptical form with flattened sides.

The two flattened sides of the body are each of them absolutely rigid, this rigidity being attained by the interposition of a thin but stiff iron plate in the substance of the rubber. The circumferential wall of the body which unites the two flattened sides to one another is wholly elastic, being composed only of rubber, and it has a slight outward bulge, so that when the rigid sides are compressed together, it yields, bulging outwards in all directions, and thus permits the rigid sides to be brought into complete contact with one another when compressed. The rubber of this circumferential wall is, however, sufficiently thick to be resilient, so that when pressure is released the syringe springs back accurately to its proper shape and capacity. In order to fulfil this requirement duly I find that it is necessary that

the circumferential rubber wall should be two millimetres in thickness.

Now, when the rigid sides are pressed together so as to touch one another, and the nozzle dipped in water, then, on releasing the pressure, only a definite and constant quantity of water is immediately sucked up. Again, on gradually compressing the syringe till its flat sides touch one another again, this exact quantity is accurately expelled, but with it no air-bubbles. The capacity of the syringe is arranged so that this quantity is precisely that which is necessary to distend fully, but not unduly, the male urethra with fluid; and thus no injection passes into the bladder, the requisite quantity of liquid for this purpose being, as I find, one fluid drachm and a half.

The nozzle is provided with an india-rubber cap, which takes off and on, so that the syringe, filled with a supply of solution, may be carried safely in the waistcoat-pocket. This cap is shown *in situ* in the lower of the two woodcuts.

The oblong shape of the body has been chosen in preference to a circular or disc shape, partly for convenience of form, but chiefly for another reason—namely, as permitting both the fore and middle finger-tips to compress it on the one side, while the thumb-tip rests on the centre of the other side; hence the rigid sides, when compressed, are steadily brought into complete contact with one another at every point.

It might be asked, Why is not the nozzle inserted directly into the body of the syringe? and, What is the use of the rubber tube?—so I may here explain that such an arrangement would prevent the rigid sides being apposed, and that the interposition of a short elastic tube prevents the glass nozzle being accidentally moved in the urethra during the compression of the syringe.

It may be necessary to explain that the rigid iron plates are completely covered, both on their inner as well as on their outer surfaces, with vulcanised india-rubber, so that they are absolutely secure against corrosion by any means; and I may add that the glass nozzle is provided with a boldly projecting shoulder, which prevents its being inserted too far into the rubber tube, and guards at the same time against the risk of the nozzle slipping down the urethra in case it should get unfixed, but it is so firmly held in the grip of the rubber tube that there is no fear of this. However, as a still further precaution the rubber tube may, if preferred, be drawn down over the glass one so as to come over and beyond the glass shoulder; but this is not needed.

I think it will be seen, without recapitulation on my part, that the syringe fulfils all the conditions that I started by naming as desirable ones. But I omitted one very important one, and that is cheapness. Now, at what price such a syringe might be made if any demand arose for it, I cannot say, but since one manufacturer offered to make me a gross of such syringes at a shilling apiece, I suppose they would not be very costly.

There is another question; it is this—May not so compact a contrivance prove itself as serviceable in the prevention as in the treatment of gonorrhœa? I believe it is pretty well acknowledged that the urethra, if promptly washed out, is much less liable to be attacked than it is when left uncared for, and that, for example, the injection of a solution of soap-and-water is a much more efficient prophylactic than the mere act of urination. However, the question of what solution may be the best prophylactic, or whether even it be good to employ any solution at all with that view, is one which I leave to those more competent than myself.

PROFESSOR VICTOR VON BRUNS.—For the chair left vacant by the death of this celebrated surgeon, the Tübingen Faculty has sent in its list of recommendations, placing Prof. Bergmann of Würzburg first, Profs. Socin, Maas, and Schede second, and Prof. Extraordinary Bruns third.—*Petersb. Med. Woch.*, May 27.

A NEW VESICATORY.—Dr. Armengué, of Barcelona, has been recently experimenting with a new vesicatory, derived from a beetle (*Enas afer*), found in great abundance in some provinces of Spain. As the result of the experiments, which he has tried upon himself and some medical students, he has come to the conclusion that this blistering agent is more certain, more prompt, less painful, and less costly, than the one derived from the cantharis. It does not seem, moreover, to induce irritation of the genito-urinary organs.—*Gazz. Med. Lombardia*, May 27.

OBSERVATIONS ON

THE PRE-ERUPTIVE STAGE IN SMALL-POX;

WITH HISTORY OF CASES.

By MONTAGUE D. MAKUNA, L.R.C.P. Lond.,
Late Medical Superintendent, Fulham Small-pox Hospital.

Cases of Prolonged Exposure to Infection.

(Continued from page 530.)

Case 13.—J. F., aged fifty-four, with one good and one indifferent mark, was first taken ill on February 26, 1878, and had backache and general malaise; date of eruption March 1, admission March 4; she suffered from V. confluens, and recovered. Her daughter, S. E. W., aged twenty-eight, with a trace of vaccine mark, was admitted on March 19, the first day of eruption; she suffered from V. confluens, and recovered. The pre-eruptive stage in her was twenty-one days. She was exposed to the source of infection for seven days.

Case 14.—A. M. C., aged fifty-three, with four good marks, was admitted on April 14, 1878; she was ill and indisposed a fortnight before the eruption appeared on her on the 11th; she suffered from V. discreta, and recovered. Her husband, aged fifty, with one good mark, was first taken ill and had headache on April 22; date of eruption 27th; date of admission 29th. They both had lived together, and it is very difficult here to count the days of exposure or the period of incubation, as the wife was ill for a fortnight and the husband for five days before the eruption appeared on them. The best course to follow here is to count the inter-eruptive period, which was sixteen days.

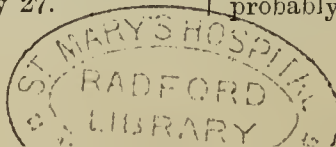
Cases 15, 16.—R. M., aged twenty-four, unvaccinated, was first taken ill and had headache on April 21, 1878; date of eruption 28th, admission 29th; he suffered from V. confluens, and recovered. His brother, J. M., aged twenty, with three good marks, was first taken ill and had headache and backache on May 9; date of eruption 10th, admission 11th; he suffered from V. confluens, and recovered. Here, again, the initial stage lasted for a week in the case, and the inter-eruptive period was thirteen days. Another brother, J. M., aged twenty-three, with two good marks, was first taken ill and had sickness on May 10; date of eruption 12th, admission 15th. He suffered from V. discreta, and recovered. The inter-eruptive period was fifteen days.

Case 17.—F. D., with two good marks, was admitted on April 2, 1878; initial stage commenced on March 28; date of eruption April 1; he suffered from V. discreta, and recovered. His wife, E. D., aged thirty-five, with two indifferent marks, had no initial stage; date of eruption April 14, admission the following day; she suffered from V. confluens, and died. She was exposed to the source of infection for six days, and the pre-eruptive stage in her was sixteen days.

Cases 18, 19, 20.—M. J. P., aged nine, with a trace of vaccine cicatrix, was admitted on April 23, 1878. Date of eruption April 21; she suffered from V. discreta, and recovered. Her two sisters and a brother, C. P., A. P., and C. W. P., aged thirteen, five, and seven respectively, all unvaccinated, were admitted on May 5; date of eruption May 4; they suffered from V. confluens, discreta, and confluens respectively, and recovered. They were exposed for about five days, and the pre-eruptive stage in them was fourteen days.

Cases 21, 22.—E. J. S., aged sixteen, with one indifferent mark, was admitted on April 18, 1878; probable date of eruption April 15; she suffered from V. discreta, and recovered. Her sister, E. S., aged ten, with three indifferent marks, was admitted on April 30; the probable date of eruption was 29th; she suffered from V. discreta, and recovered. A lodger in the same house, J. T., aged two, unvaccinated, was also admitted on April 30; date of eruption 29th; he suffered from V. discreta, and recovered. They both were exposed for about three days, and the pre-eruptive stage in them was fourteen days.

Cases 23, 24.—Albert and Alfred M., two brothers, aged eleven and eight, with two and four indifferent marks, were admitted on April 1, 1878. Alfred had headache and vomiting on March 27; date of eruption 28th. Albert had headache on March 28; date of eruption March 30. They probably were exposed to the same source of infection.



They suffered from V. discreta, and recovered. W. R. M., a third brother, aged twelve, with four indifferent marks, had the premonitories on April 5; date of eruption 6th, admission 9th; he suffered from V. discreta, and recovered. Counting from Albert, he was exposed for six days; period of incubation in him was nine days, and the pre-eruptive stage was ten days. The fourth brother, J. C. M., aged nine years, unvaccinated, had the premonitories on April 9; date of eruption 10th, admission 12th; he suffered from V. confluens, and died. He was exposed for six days; period of incubation in him was twelve days, and the pre-eruptive stage thirteen days.

Case 25.—F. T., aged thirteen, unvaccinated, was first taken ill with vomiting on April 21, 1878; date of eruption 23rd; he suffered from V. confluens, and died. His sister, A. T., aged fifteen, with one good and two indifferent marks, was admitted on May 3; date of eruption May 2; she suffered from V. discreta, and recovered. She was exposed for four days, and the pre-eruptive stage in her was eleven days.

Cases 26, 27.—G. P., aged seventeen, with two indifferent marks, was admitted on April 12, 1878; date of eruption 10th; he suffered from V. discreta, and recovered. His two brothers, C. P., aged eight, with one good mark, and J. P., aged fifteen, with four indifferent marks, were admitted on April 24, the first day of eruption in them. The former was first taken ill on April 21, and had headache; the latter on April 22, and had headache and vomiting. They both suffered from V. discreta, and recovered. They were exposed for about five days; the period of incubation in the former was thirteen days, and in the latter fourteen days; the pre-eruptive stage in them was sixteen days.

Case 28.—J. A., aged seven, unvaccinated, was admitted on April 26, 1878; date of eruption 25th; she suffered from V. discreta, and recovered. Her mother, S. A., aged thirty-two, with two indifferent marks, had eruption on her on the 10th, and was admitted on May 11; she suffered from V. discreta, and recovered. She was exposed for about four days; the pre-eruptive stage in her was about eighteen days.

Case 29.—H. T. S., aged nine years, unvaccinated, was admitted on May 6, 1878; date of eruption May 5; he suffered from V. confluens, and recovered. His father, A. S., aged thirty-five, with one indifferent mark, was admitted on May 22, 1878; date of eruption May 20; he suffered from V. discreta, and recovered. He was exposed for about four days, and the pre-eruptive stage in him was seventeen days.

Case 30.—V. G., aged three, with three good marks, was admitted on May 8, 1878; date of eruption May 3; he suffered from V. discreta, and recovered. His sister, E. G., aged five, with three indifferent marks, was admitted on May 18, 1878; date of eruption 17th; she suffered from V. discreta, and recovered. She was exposed to the source of infection for about eight days, and the pre-eruptive stage was sixteen days.

Case 31.—E. S., aged twenty-five, with a trace of vaccine mark, was first taken ill and had nausea and backache on May 14, 1878; date of eruption and admission May 17; she suffered from V. discreta, and recovered. Her husband, aged twenty-one, with four indifferent marks, was first taken ill and had vomiting on May 31; date of eruption June 2, admission June 3; he suffered from V. discreta, and recovered. He was exposed for four days; period of incubation, seventeen days; pre-eruptive stage, nineteen days.

Cases 32, 33.—S. B., aged seven, with six indifferent marks, was admitted on May 28, 1878; probable date of eruption 26th; he suffered from V. discreta, and recovered. His brother, F. B., aged nine, with three indifferent marks, was admitted on June 11; date of eruption June 8; he suffered from V. discreta, and recovered. He was exposed for five days, and the pre-eruptive stage in him was sixteen days. S. B., the father of these, aged forty-one, with one good mark, was admitted on June 13, the first day of eruption; he suffered from V. discreta, and recovered. He was exposed for five days, and the pre-eruptive stage in him was twenty-one days.

Case 34.—J. D., aged fifteen, unvaccinated, was admitted on May 23, 1878; the probable date of eruption in her was the 21st; he suffered from V. confluens, and recovered. Her sister, L. D., aged ten, unvaccinated, was admitted on June 3, the first day of eruption; she suffered V. confluens, and recovered; the inter-eruptive stage was fourteen days.

Cases 35, 36.—G. C., aged nineteen, unvaccinated, was admitted May 25, 1878, the first day of eruption; had

general malaise on May 24; he suffered from V. confluens and recovered. His sister, E. C., aged seventeen, unvaccinated was admitted on June 8; the probable date of eruption was June 7; she suffered from V. confluens, and recovered. She was exposed for two days; the pre-eruptive stage in her was fifteen days. S. D., a lodger in the same house, aged thirteen, with two good marks, was admitted on June 12; date of eruption June 10; she suffered from V. discreta, and recovered. She was exposed for two days, and the pre-eruptive stage in her was eighteen days.

Cases 37, 38, 39, 40.—A. N., aged eleven, with five indifferent marks, was admitted on May 12; date of eruption 9th; she suffered from V. varicelloides, and recovered. She was followed by four of her brothers and sisters. W. N., aged eight, with two indifferent marks, was admitted on May 20, the day of the eruption; he suffered from V. discreta, and recovered. R. N., a sister, aged four, with one indifferent mark, was admitted on May 20, the first day of eruption; she suffered from V. discreta, and recovered. They were exposed for six days, and the pre-eruptive stage in them was about fourteen days. E. N., aged six, with four indifferent marks, was admitted on May 21, the day of eruption; she suffered from V. discreta, and recovered. She was exposed for six days, and the pre-eruptive stage was about fifteen days. T. N., aged three, with one indifferent mark, was admitted on May 22, the first day of eruption; he suffered from V. discreta, and recovered. He was exposed for six days, and in him the pre-eruptive stage was sixteen days.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE TRAINING HOSPITAL, TOTTENHAM.

A CASE OF TETANUS NEONATORUM.

(Under the care of Dr. E. HOOPER MAY.)

[Reported by Mr. SIDNEY DAVIES, B.A., M.R.C.S., House-Surgeon.]

ALBERT D., aged seven days, was admitted into the Training Hospital about 4 p.m. on April 3. The nurse who brought him stated that he had been quite well, and sucked the breast naturally, till the day before, when his jaws became firmly closed, so that nothing could be passed between them, and he had a general convulsion, with flexed arms, clenched hands, and difficult breathing. He cried loudly at this time. The mother stated that the first thing she noticed was an attack of wind in the stomach, with spasm of the abdominal muscles.

Both parents were healthy, and had had four other children, all living. Their home was a fair-sized cottage, of average cleanliness; the room in which the mother was confined was small, being nearly filled by two double beds, occupied by the parents and children; the mother's bed lay immediately under the window, but the nurse stated that she was exposed to no draught at the time of delivery.

On admission, the child was in a state of general muscular spasm, and was crying fairly lustily. It was a very large, well-nourished male child, and had a partial hare-lip; the umbilical cord was separated; the wound was not quite healed, but healthy, with no morbid appearance. The mouth was partly open, the lower jaw fixed, the brows contracted, eyes screwed up, and whole face drawn. The arms were firmly flexed, and the hands clenched, one thumb being inflexed, the other excluded from the grasp. The legs and toes were also partially flexed. The head was slightly retracted. The breathing was quick and shallow.

A warm bath was ordered, and after being in it about seven minutes the muscles became much relaxed.

About 7.30 p.m. on the same evening the child was seized with another attack of severer spasms. It now cried very feebly, and immersion in a warm bath produced no beneficial effect. The baths were accordingly discontinued. The severe spasm subsided shortly, but a continual state of muscular contraction remained, and exacerbations came on when the child was disturbed, as by feeding. The exacerbations soon occurred without any visible stimulus, and returned, for the greater part of the time it survived, about

every half-hour; they lasted from five to twenty minutes. Ordered a grain each of potassium bromide and chloral hydrate in a drachm of water every two hours.

During the night the child lay quiet, apparently asleep, except when the exacerbations came on. Audible cries had ceased, nor did they return.

When seen again in the morning, it lay with both eyes tightly closed, face and mouth drawn equally on both sides, mouth puckered, left pupil larger than right, hands as before. Opening the eye brought on a spasm. Temperature at 10.30 a.m., 103° Fahr. Ordered the chloral to be increased to four grains, and the bromide to two grains, and given every three hours.

In the evening the spasms became more frequent and severe, and during them the child became rather cyanosed. When seen at 11 p.m. the limbs were quite lax, and examination brought on no spasm; but the face was cyanosed. A very severe spasm was reported to have occurred at 10 p.m.

The medicine was now discontinued. Three spasms occurred after this, and the child died in a spasm at 1 a.m. Temperature at 9 p.m., 105°7' Fahr.

The child had been fed all along by a spoon with the mother's milk, drawn off for the purpose. This feeding was performed with some difficulty, but on the whole the child took a fair quantity of nourishment.

Post-mortem Examination (made by Mr. R. W. Parker).—The post-mortem was made about twelve hours after death, the weather being cold. Rigor mortis was very marked. The first, second, and third toes of each foot were strongly flexed on the sole; the hands were clenched tightly, thumbs over the fingers. The body was well nourished, and there was a good layer of subcutaneous fat; the skin was congested, especially over the back as it lay. Abdomen distended. There were no marks of violence on any part of the body. The remnant of the funis was quite recently detached; the umbilicus showed some blood. There was nothing peculiar about the skull. On removing the calvaria, the bone was found firm and very vascular; the sutures were still soft, and there was a large depressed anterior fontanelle. The brain was rather soft; no fluid in the ventricles; the puncta vasculosa were not especially prominent, and there were no extravasations of blood. The corpora striata and optic thalami appeared normal. The membranes were not particularly congested, but the readiness with which the pia mater was detached from the brain, and from the cord also, was very striking. (In young children, as is well known, the membranes are much more adherent than in adults, and especially in old atrophic brains.) On opening the spinal canal a quantity of extravasated blood was found occupying the soft tissue (fat) which surrounds the theca of the cord throughout the entire length of the canal. The cord itself did not present any naked-eye change. The nerve-centres will be reported on separately elsewhere. The left ventricle of the heart was firmly contracted. The right ventricle and both auricles were filled with recent dark-coloured coagulum. There was no fluid in the pericardium. The thymus gland was very large, being attached to the pericardium and extending to the cricoid cartilage. The larynx was healthy. The lungs were very blue; did not contain much blood. They were collapsed in places, the right lower lobe almost completely so. Liver (five ounces and a half) presented nothing abnormal. Spleen (quarter of an ounce) normal. Kidneys (together half an ounce) were congested along bases of pyramids; cortex very narrow. Bladder quite full of urine. Intestines healthy; presented a few post-mortem intussusceptions—small intestine into itself. Microscopic examination of the umbilical arteries and vein has not discovered any abnormal condition of these structures.

Remarks (by Mr. Sidney Davies).—The diagnosis in this case was first made by the friends, for the nurse said, when she brought the child, that it had "lock-jaw." Having seen the two cases of tetanus neonatorum which occurred at the East London Children's Hospital last winter, and were reported in the *Medical Times and Gazette*, (a) I immediately thought of that disease; but when the spasms subsided almost completely in a warm bath, I gave up the idea that it was a case of tetanus, and thought it was a simple convulsion. The diagnosis, however, was made sure within a few hours by the following points:—The continuous muscular spasm

which supervened on the second attack of severe spasms; the fact that a warm bath with mustard did not relieve the spasms; and the absence of sonorous cry. The latter point, though not characteristic of tetanus in adults, was observed in both the above-quoted cases which occurred at Shadwell. The exacerbations were of unusually long duration in this case, lasting from five to twenty minutes (according to the nurse's statement). The treatment adopted was that which appeared to be partially successful in one of the two aforementioned cases, i.e., large doses of chloral. Certainly a beneficial effect appeared to be produced, and the death of the child—probably from spasm of the glottis—so soon after I last saw it was quite unexpected.

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THE MEDICAL TIMES AND GAZETTE is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.

Medical Times and Gazette.

SATURDAY, JUNE 10, 1882.

A "SERVICE" DISPUTE.

WHEN it appeared from the Parliamentary summary which appears in the daily papers that the Secretary for War had promised to inquire into the working of the existing system of managing the Army Hospital Corps, and that some allusion was made to its shortcomings during our late African wars, the idea excited was that some slight defects had there been discovered, and might require to be remedied. This did not, however, seem of much importance, for what did really go quite right in Southern Africa? We knew well enough that the medical transport went wrong, and the Army Medical Blue-book for 1879 had told us the reason why. It was all owing to the Hottentot drivers! Thus we imagined that the result of any fresh inquiry by the Secretary for War could only fix the blame more firmly on these semi-savages, and that they, the Zulus, and Kaffirs generally, might well share among themselves any and all discredit attached to our African campaigns. But a suspicion arose that there was more than met the eye in the simple demand for an inquiry into the state of the Army Hospital Corps; and there does seem some reason to fear that a covert attack is being made on the whole Army Medical Department, with the intention of counteracting a revolutionary scheme supposed to be contemplated by the Army Doctors. We are very sorry to find that there is some foundation for all

(a) November 26 and December 3, 1881.

these suspicions and rumours. We had hoped that the liberal concessions made so lately by the War Office to the Medical Department, the increase of pay and pension, the recognition of past services, and the promise of future rewards, would have put an end to all heartburning as far as that Service was concerned, and that the Medical Officers would have rested contented with the redress of past and present grievances. We acknowledge indeed to some foreboding that the regulations which gave "command" to medical officers in charge of hospitals over all attached to those establishments would be disliked by many military men, who, we were aware, objected, and still object, to non-combatants exercising any command whatever; it is very essential that medical officers should be supreme in their own department, and we hoped that this feeling would give way if the Doctors exercised with modesty their newly acquired powers. It would seem, however, that some—let us hope only a few—Army Medical Officers wish for rank and authority *beyond* what is necessary to enable them to conduct their departmental duties with efficiency; that they want to be something *more* than Army Doctors, and seek to alter rather than simply improve their position in the Service. For generations back efforts have been almost incessantly made to raise the status of the military surgeon, and if they have been attended with success, it is because the steps taken have been such as the whole body of medical men in England honestly and sincerely approved. It is not a hundred years ago since the hospital mate, the assistant-surgeon of those days, was liable to be flogged, while the surgeons of regiments were not allowed to kiss the King's hand! It is to the credit of the profession generally that its military members have raised themselves to an excellent social position by good conduct, devotion to duty, and professional skill and knowledge. Little by little they have gained in position, in pay, in consideration, in relative rank, and at last they have obtained the right to be supreme in their own hospitals, and greater freedom to do their best for the sick and wounded committed to their charge. Surely this is great gain; but it appears that some members of the Medical Department (how many or how few we cannot tell) are not yet content, and it is worth while to inquire what they really do want, since they have managed to rouse the indignation of the combatant officers to such a degree as to make them in turn unjust and unreasonable. The agitators for further reform have circulated "A Programme for the Officers of the Army Medical Department." We believe it will not commend itself to the authorities, and we are sure that it will not be approved by the medical profession generally. The tone of the document is unhappily aggressive, and some of the steps advocated are, we think, calculated to injure the interests of the Department. We are not prepared to say that there is not a reasonable excuse for some of the demands made by the dissatisfied Surgeons, and we cannot admit that the counter-arguments brought forward by the advocates of the combatant officers are altogether just.

The Programme of the Surgeons says one of their aims should be "the union of the Army Medical Department officers and the men of the Army Hospital Corps into one body, to be called the Army (or Royal) Medical Corps, with a uniform, title, and tradition in common." This is not altogether a new idea, for the Committee which formerly reported upon the causes of the dearth of candidates for the Army Medical Service stated—"We think it is a matter for consideration whether they might not be styled Royal Army Surgeons, Royal Medical Staff, or by some other appropriate designation." The change of name seems to us a trifle, but the authors of the Programme want more than a change of name.

The next aim of the Programme, headed No. 2, is this—"The existing system of dividing the officers of the Army into combatants and non-combatants to cease; the officers now called combatants to be called executive, and the existing non-combatants to be called administrative." With respect to this we have only to observe that, in our opinion, the change of name would be useless. The soldier would remain the soldier, and the doctor must be content to be his doctor. We acknowledge, however, that the War Office Committee reported that "the death-rate of medical officers from accidents on service greatly exceeded that of combatant officers, and recommended that the Medical Department should be associated with the combatant service."

Claim or proposal No. 3 is—"The existing system of giving us sham relative rank to be replaced by definite military rank with military titles." Thus, Surgeon-General Smith would be converted into Major-General Smith, Surgeon-General A.M.D. Can it be imagined that on his visiting-cards the gentleman would appear as Major-General only, and that the unnecessary allusion to his connexion with the Medical Department would be dropped? What other imaginary good is to be got out of the proposed change? In the Army, where the man is known, he must be the doctor, and why should he pretend to be something else where he is not known? We will not believe that the men who wish to parade as Generals are ashamed of their noble profession; but they show little reverence for it when they seek to masquerade in fancy dresses, and assume fictitious titles. The doctor has a place of his own in the world. If he be worthy, he may obtain honour, love, obedience, troops of friends; and why should he not be content? He must remain, by the very nature of his profession, the servant of the lowest of his afflicted brethren; and why should he ape the showy honours and titles of a different class? There may be no good reason why the honours of war should be monopolised by the combatants, but the custom has been the growth of ages. The spoils and chief honours have ever gone to the dealer of the blows, not to the healer of the wounds. A Medical Officer may exhibit some of the best qualities of a General on the battle-field, by providing for his wounded under the hottest fire, or conducting their transport during the most harassed retreat, but these duties are *exceptional*. The daily round, the common task of his life, is far less heroic, although, at the least, equally useful; and the military surgeon become indeed more and more of a Doctor, and less and less of a General, as the long string of sick men, women, and children pass through his hands.

But while we consider the Programme a mistake, and deeply regret the tone of its writers, we must also protest against the angry replies which it has called forth. The *Army and Navy Gazette*, of May 27, traces the decline and fall of the whole Army Medical Department to the fact that the command of the Army Hospital Corps was weakly yielded to the officers of the Medical Department. The writer says: "Once the entrance examination is passed, professional ability or eminence seems to be thought nowadays to be rather against than favourable to a successful career in the Army Medical Department." We will hope that things are not *quite* so bad as this; and we are sure that what follows is not true: "Our soldiers are not properly cared for; their wives and families do not receive that ready and willing medical advice and attendance to which they have a right to look, and which the country expects them to receive. As to officers, it is notorious that with them the rule is to call in a civilian practitioner, and pay him—of course from their private purse,—because they object to trust themselves to the tender mercies of the Soldier Doctor." Well, we hear

of few cases of alleged neglect of soldiers' wives and children; far fewer than are to be found with regard to civilians entitled to parochial relief in the country districts of England; and if officers do really prefer to employ civilian practitioners, they may have their reasons, but these are not to be found in the incompetence of Army Doctors. The Service now attracts some of the best men of the medical schools, but it was never intended that it should be officered entirely by the very best men the London hospitals can produce. The *Army and Navy Gazette*, naturally enough, publishes a counter-programme. It suggests the withdrawal of all command from the Doctors, and last, not least, it would devise "a suitable uniform for Army Medical Officers, in which neither gilt spurs nor gold lace shall have a prominent place." We cannot for a moment agree that the command of their own establishments ought to be taken from the Doctors, but we hope it will be strictly confined to the one great object—which is, the efficient performance of non-combatant duties. With regard to the question of dress, and the abolition of spurs and lace, many medical officers would not raise the slightest objection. Depend upon it, there is a large proportion of medical officers in the Service who do not wish to figure as major-generals, who care nothing for ivory-hilted scimitars, gold sashes, or dyed cock's feathers, and who are quite willing to render professional assistance to all entitled to it, and are content still to be "the Doctors." In conclusion, let us hope that the authors of the Programme for Army Medical Officers may not have injured their own department. They may possibly have already made the question of who is to command in hospitals doubtful, and they have certainly succeeded in stirring up bad feeling in the Army generally. We fully believe they did not mean to create such a breach, and we trust the combatant branch has no desire to enlarge it. The misunderstanding seems to have sprung from little, and to have been magnified by accident. We trust we may indulge the hope that the falling-out of faithful friends may prove in this case but the renewal of their mutual friendship.

CYSTOTOMY.

MANY different operations have at various times been called cystotomy, but very few appositely so. Dionis performed an operation for the relief of retention of urine, which he said "might truly be called a cystotomy, because the bladder itself is actually cut into." The method of performing lithotomy, which had been taught by Frère Jaques, had put into the mind of Dionis the idea of relieving retention by puncturing the body of the bladder near the neck of the organ, so as neither to open the urethra nor divide the cervix vesicæ. In John Bell's day this seems to have been the only method of puncturing the bladder for retention, which was mentioned in "Systems of Surgery." Sharp described the operation in his critical inquiry thus—"With a view to puncture the bladder from the perineum, the patient ought to be laid upon his back, and his thighs being properly separated and secured by assistants, an incision should be made of about an inch and a half in length, beginning at the commencement of the membranous part of the urethra, and continuing it towards the anus in a line parallel with, but at least half an inch distant from, the rapha perinæi: in this manner the skin and cellular substance ought to be freely divided, which puts it in the power of the operator not only to introduce the trocar with more ease, but to avoid the urethra with more certainty than he otherwise could do. This being done, as the bladder is always much distended when this operation is necessary, it will be very easily distinguished by pressure at the bottom of the wound; but whether it should be felt by the finger or not, there need be

no hesitation in pushing in the trocar a little *above and to the left of the prostate gland.*" The cystotomy of Dionis was therefore essentially the same as the lithotomy of Frère Jaques, and surgeons by adopting it had retrograded 200 years, without even reflecting, as John Bell remarked, that by puncturing the bladder through the rectum exactly the same objects would be attained, with as perfect security and almost as little danger as paracentesis abdominis is performed.

Under the name cystotomy, also, Civiale described the various methods of cutting for stone in the bladder. Thus, according to him, there are perineal, supra-pubic, medio-bilateral, and other forms of cystotomy.

Other surgeons again, including Hamilton, have described paracentesis vesicæ, whether through the rectum or above the pubis, as cystotomy; but it is not to these operations, nor to the dangerous and unscientific proceeding of Dionis, that the name cystotomy is now intended to refer; nor is it as a remedy for retention that the operation has lately attracted attention.

The cystotomy we speak of is designed for the removal of tumours of the bladder, as well as for the relief of the pain and frequency of micturition in tubercular and other obstinate forms of cystitis. Two procedures have been adopted for these purposes, and have been inaptly called median and lateral "cystotomy." If the median incision is employed, the operation is essentially the same as median lithotomy, or perineal section with the advantage of a grooved staff to cut upon; the membranous, and perhaps a small part of the prostatic, urethra is cut, but the incision does not extend to the bladder. If the lateral incision is made, the prostatic urethra is divided as in lateral lithotomy, and the division may reach, but does not go into, the neck of the bladder. The name urethrotomy (not cystotomy) is therefore the proper designation for either operation.

This is not a question of words only, but of results, especially as regards the median operation; because the ease with which an incision into the membranous part of the urethra can be made, and the little risk attending and following it, are not to be compared with the more serious and severe operations in which the walls of the bladder are actually divided, and to which alone the term cystotomy is appropriate. Moreover, the non-interference with the vesical walls is probably an important and favourable feature of the operation, when done for ulceration or inflammation of the bladder.

Recently, Sir Henry Thompson has suggested the median perineal section of the urethra as a means of diagnosis of tumours of the bladder; and when it is remembered how difficult the diagnosis of bladder-tumours in the male is, and how almost impossible it is, even when the existence of a growth is certain, in the great majority of such cases, to make sure beforehand whether the tumour could be removed or not, any method of digital examination which will render the diagnosis more certain, and which is almost as safe as the rapid dilatation of the female urethra, claims, and ought to receive, impartial consideration. For our own part, we do not doubt that in the future the bladder will be explored by the method now referred to, in many cases in which a vesical tumour is on good grounds suspected. In at least three cases during the last four years we have ourselves suggested the same procedure, but in each instance with the result that we have seen no more of the patient. But if it comes to be a recognised practice in suitable cases, and patients find that one surgeon after another whom they consult advise it, they will be induced, and in many cases with unqualified advantage to themselves, to follow the advice given to them.

Of course it must happen, when the measure is generally

adopted by surgeons, that in a certain, and perhaps even a large, proportion of cases in which digital exploration of the bladder is made, no tumour or other foreign body will be detected. Indeed, in none of the four cases related by Sir Henry Thompson in a contemporary (the *Lancet* of May 6), in which he explored the bladder, was there a growth or a stone discovered. But this is of no moment as regards the validity of the operation, (1) because the cases for which it would be proposed are only those in which the disease of the bladder is obstinate and the symptoms very grave; (2) because the free escape of urine through the wound, by giving rest to an inflamed, ulcerated, or otherwise diseased bladder, will almost certainly be followed by marked relief of symptoms; and (3) because the operation is a very safe one, as the results obtained by Syme, Cock, and others, of external urethrotomy have abundantly proved.

But, supposing a tumour to be discovered, what are the chances of its being *successfully* removed; and will the median incision suffice for its removal? Two successful cases at least have been reported by English surgeons, viz., Humphry and Thompson; the former adopted the lateral incision, and the latter the median. Another successful case was Billroth's, but in this the operation was severe and complicated. The lateral incision of the urethra from the perineum was first made, and found insufficient. Then supra-pubic cystotomy was added, both recti muscles being cut across, and a transverse incision carried into the bladder.

Professor Gross ("On the Urinary Organs," third edition, page 153) has tabulated sixteen operations performed for the removal of papillary and sarcomatous tumours from the bladder, but only four of the patients were males, and of these two died. Agnew, in his new work on Surgery (vol. ii), refers to two other successful cases in his own practice, but omits to mention the very important point of the sex of his patients. Stein has collected eleven cases of operation in males, eight of which were successful; he also refers to several other cases of bladder tumours in males which might have been cured by operation.

Success or failure will, of course, largely depend upon the nature of the growth. If the tumour be a fibroma—solitary, polypose, and limited to the submucous tissue—the result, in all probability, would be very favourable. If a papilloma, solitary and pedunculated, the operation may be as simple as in the case of the most favourable fibroma; but when they are spread over a large area the papillomata may be practically unremovable. If a myxoma, no attempt at removal would be likely to succeed; and if a cancer, complete extirpation would be impossible, and therefore no attempt at removal should be made.

Age is another important factor. Almost all the successful operations have been performed on persons under middle age.

As regards choice of incision for the removal of tumours, experience is not yet large enough to furnish us with sufficient data on which to found an opinion; but the arguments in favour of the median section for the purpose of exploring the bladder are, to our mind, convincing. If, after detecting the tumour, a larger incision is required for its removal, it would be easy to convert the median into the medio-lateral or bilateral, or to supplement it, if needs be, by the supra-pubic cystotomy. Up to the present time Sir Henry Thompson's is, we believe, the only case in which the median incision alone has been employed. The lateral operation has been the general one. Except Billroth's, all the supra-pubic operations have been unsuccessful.

In the treatment of tuberculous disease of the bladder or prostate gland, and in cases of intractable vesical catarrh or chronic cystitis, division of the membranous portion of the urethra in the middle line of the perineum, with dilatation of

the prostatic urethra (*i.e.*, the so-called median cystotomy), is of great use.

It is to be desired that surgical opinion should be clear on this point, and the authors of surgical text-books explicit. At present, however, that is not usually so; and patients are permitted to go on suffering agonising pain and the incessant worry of hourly or even half-hourly micturition, who might be relieved, if not entirely cured, by this simple section. Dr. Weir, of New York, has collected 36 cases of "cystotomy" for cystitis in the male, and of these no less than 17 were cured or so much relieved as to get practically well, 4 were only slightly relieved, 4 failed entirely, and 11 died. In some of the fatal cases, death was due to renal complications; but this shows that the operation was not done early enough to save life, not that it was impotent to relieve or remove suffering during the last days or weeks of life.

In 20 out of the 36 cases lateral cystotomy was performed, in 4 bilateral, and in 5 median, the prostate being incised to some extent in 2, but only dilated in the other cases. In 7 the form of operation is not mentioned.

If these statistics do not present a very flattering view of the operation they are at least very encouraging. The failure of an operation in cases in which all else has also failed ought not to be set up as an argument against it, if there be proof that it has succeeded in other cases in which also all other remedies have been tried and failed. Probably better results will be obtained if the median operation be performed; there is less risk by it than in the lateral and bilateral operations, and the drain of urine away from the bladder is quite as rapid and thorough. Nor is there any difficulty in keeping the median wound patent. In the recent discussion at the Medical and Chirurgical Society, Mr. Henry Morris referred to a case in which he had been able to give his patient almost entire immunity from pain for seven weeks, by the median incision. Indeed, it seems probable that in just those cases in which the most prolonged and efficient drainage of urine is advantageous, the tendency of the wound to heal will be the less, on account of the incessant flow of urine through it. This, however, would apply to the median and the lateral section alike. It is, however, important to note that there is no marked disposition for the median wound to close early. The artificial passage might be kept indefinitely in a permeable state by introducing a flexible bougie from time to time. It is well known that patients have continued for years to pass all their urine through the perineum after they have undergone Cock's operation for impermeable stricture.

THE PATHOLOGICAL SOCIETY.

THE report of this Society's proceedings, which we publish elsewhere, brings the work of this session to a close. The meeting was largely attended, and among the many specimens of interest which were shown we may mention cases of congenital absence of long bones in the limbs; a psammoma, with microscopic sections of the spinal membranes; and the conclusion of Dr. Stephen Mackenzie's case of hæmato-chyluria. The former part of this case was duly reported in our columns. Shortly after being shown at the Pathological Society the man got double pleurisy, of which he died. During the early stages of the pleurisy the filaria disappeared, both from the blood and the urine, and never reappeared. The abdominal lymphatics were found enormously dilated, as were also those in the iliac and lumbar regions.

There had been rumours of an additional meeting in order to work off the arrears, which appear to have accumulated more plentifully than ever; but the Council seem to have

decided—and we think wisely—not to grant this. It is exceedingly probable that had an additional meeting been announced, further specimens would have been sent in, and the plethora of work would not therefore have been materially relieved. The question of how to deal with surplus materials will, however, one day have to seriously occupy the attention of the Society.

An accurate knowledge of the pathology of disease is absolutely necessary for all fresh advances, and every means should be taken to forward the interests and increase the utility of a Society which cultivates this branch of medical science. It may, however, be questioned whether the regulations at present in force regarding the exhibition of specimens and the discussions on them are the best and most satisfactory possible. In the first place, owing to an entire absence of systematising the work, there is a great amount of repetition. This would not be objectionable if the time at the Society's disposal were unlimited. But when it is remembered how few are the hours for actual work the matter assumes another aspect. For instance, during the past session there have been fifteen meetings, nominally of an hour and a half each. Deduct a quarter of an hour from each for the formal business of the evening, and there remains a total of about nineteen hours for the entire session. With such a limited time to work in, and such an unlimited subject to work at, it seems highly desirable that some new regulations should be formulated.

In the first place, the plan of exhibiting card specimens might be more developed than it has been during the past session. All fresh specimens ought to be shown in this manner, and the term "fresh specimen" should be restricted to such as are really fresh and unaltered by preservative solutions. The regulations as printed should also be strictly enforced—the first of which, that the specimens "be ready for inspection in the Society's rooms not later than 8 p.m." (now almost a dead letter), should be strictly observed; and, especially, the exhibitor should be there to explain his specimen to any who may care to examine it minutely. In looking back on the meetings of the past session, we call to mind many instances where time might have been saved by carrying out this plan, and certainly without loss to the Society.

It may also be worth considering whether the time has not come when the Society might set apart evenings, or portions of evenings, for the consideration of the lesions of particular organs. For instance, might not the Council arrange beforehand that specimens illustrating diseases of the kidney shall have preference on such an evening, diseases of the brain on another, diseases of the lungs on a third, and so on? It seems very probable that more instructive discussions would thus be brought about, and that much time would thereby be saved. It would be open to members at other meetings, either before or after, to show card specimens of these organs, supporting or negating any given theories. If specimens are not quite fresh, they lose little or nothing by waiting till their proper turn comes round; their promiscuous exhibition to an audience, the most interested members of which are only anxious to relate their own cases, often prevents that attention which the specimens merit, and disappointment results. At the same time, it should not be overlooked that this plan would tend to bring men specially interested on the selected subjects on these evenings, whilst many who could throw light on more than one subject would be tempted to select one only, to the detriment of other discussions; but something must always be risked.

A third way in which time might be saved would be by curtailing what some consider clinical details. It is not necessary to know the date and hour of admission to hospital, or of death, or the details of treatment; on the

other hand, the presence or absence of family predisposition, of hereditary tendency, of any unusual symptom, are matters of importance which can be conveyed in a few words. Sometimes an author, in showing a single, and perhaps ordinary enough, specimen, has inflicted on the Society long statistical and descriptive details of every similar specimen that has been recorded. Such papers cannot, of course, be followed and appreciated until printed, and it is unwise on the part of an exhibitor to hurriedly give this sort of information (which is most useful when published in the *Transactions*) to an audience not expecting or prepared for it. The President has considerable power when he chooses to assert it; and notions of false delicacy should never prevent his kindly interference whenever an author goes too far afield.

The sister societies all require that the papers to be read shall be handed in to the secretary before the day of the meeting. Might not some rule of this kind be introduced at the Pathological Society? It would greatly increase the work of the Secretaries, but sub-committees might be appointed, and this would soon effect a better order of things. Furthermore, it would add to the value of recorded specimens. We only mention this plan as a suggestion we have heard made; and when it is remembered that the most ardent pathologists are for the most part young men, many of whom are just beginning independent work, it may be admitted that some little supervision, as well as kindly help and direction, might be profitably exercised in such a matter as pathology.

THE WEEK.

TOPICS OF THE DAY.

It must be allowed that Lord Derby's views, at least in social matters, are characterised by robust, sound, common sense. Speaking recently at the opening of a bazaar at Stanley Park, Liverpool, in aid of the Stanley Hospital, his Lordship said it would be only what people called "burning daylight" if he were to talk about the utility of hospitals, or the necessity for their existence. They were, perhaps, the only form of charity absolutely free from the suspicion of imposture. In addition to their direct good, they conferred indirectly an immense advantage on the community, because they were schools of professional teaching, by which all classes profited, and by which no class profited more than the comparatively wealthy, who, except as visitors, were never likely to set foot in a hospital. It was by the bedside of the hospital patient that the eminent physician or the eminent surgeon acquired a large part of the skill which he used in the relief of his wealthy patients.

Lord Derby further observed that many people thought that hospitals ought to be made more self-supporting; and he agreed in that view, and would be glad to see them at least partially become so. There ought to be some provision made for that numerous and important class, who, while they could not afford to pay largely for medical relief, were yet honourably unwilling to accept charity, and who might—and under an improved system ought to—make some provision for themselves in that respect by a moderate payment beforehand. A movement to make such desirable provision had been inaugurated, but it had not yet altogether made its way; and as people would suffer from accidents and would fall ill, however movements prospered or whatever delay occurred, it was quite clear that in the meantime hospitals must be kept up on the old footing. Common feelings of humanity would not permit us to see any human being suffer, whether he could afford to pay for his cure or not; and while that feeling continued (and he did not think it likely to cease in our time) it was evident that there must

be hospitals which were not self-supporting, and on behalf of which appeals must be made to the public, and such appeals, to be successful, must be freely and frequently made.

Attention has been recently called to the increased mortality amongst infants from "overlaying," and on Saturday last a coroner's jury expressed a strong opinion in one of these cases. The inquiry was held before Dr. Danford Thomas on the body of a child aged three months, the daughter of a labourer residing at Islington. The mother deposed that she returned home about 1 a.m., having been out with some female friends to a public-house. She and the deceased child, who was perfectly healthy, went to bed, there being in the same bed three other children. About five o'clock she awoke and found the child was dying, and it died a few minutes afterwards. A medical man deposed that when he was called, about eight o'clock, deceased had apparently been dead about three hours. There was no discolouration of the face, such as pressure would produce; he had since made a post-mortem examination, and found that death had resulted from congestion of the brain, produced either by suffocation or convulsions. There were no signs that the deceased had been given drink. The jury, after some consideration, returned the following verdict: "That the deceased was found dying or dead in bed by the mother, and that the deceased died from congestion of the brain, caused either by suffocation or convulsions, and that such death arose from neglect on the part of the mother, who went to bed the worse for drink; and that the mother is deserving of the severest censure for her conduct."

Our contemporary the *Builder* has uttered a warning, which, if a little premature, should certainly not be altogether neglected. Speaking of potable water it says:—"London must drink; her enormous population, increasing at a rate which doubles itself in forty years, must have a certain quantity of water. How much will be required is not a matter of vague estimate,—the statist can tell with the utmost precision on the assumption that the rate of growth of the past half-century is maintained for the half-century to come. And the controlling consideration is this: we know what is the summer flow of the Thames at Gravesend; we know that that flow consists of all the water collected from springs, brooks, wells, rivers, or other sources within the area of the watershed, which is not evaporated, or which escapes to the sea in a mode that has not yet been traced, whether this water has or has not passed through the animal system of man or of beast, as a certain portion of it certainly has done. And we know that the date may be fixed, and that not in a very remote future, when the whole of this water, so measured in its minimum discharge, will not be thirty gallons apiece for the inhabitants of the Thames Valley. Whence is the supply to come for the future increment of the population? There remains but one source of supply which can be regarded as permanently adequate to the demand. Seeing that in, let us say, 1950 it will be absolutely necessary to impound the rain-water, it is not a day too soon to begin the study of the best method of utilising it."

During the month of April last, the Registrar-General for Scotland tells us in his monthly report, there were registered in the eight principal towns of North Britain the births of 3578 children and the deaths of 2267 persons; allowing for increase of population, this latter number is 475 below the average for April during the last ten years. A comparison of the deaths registered in the eight towns shows that during the month under notice the mortality was at the annual rate of 15 per 1000 persons in Leith, 17 in Dundee, 21 in Edinburgh and in Greenock, 22 in Aberdeen and in Perth, 25 in Glasgow, and 27 in Paisley. Of the total number of deaths, 967, or 42·7 per cent., were those of children under five years

of age. The miasmatic order of the zymotic class of diseases proved fatal to 352 persons, and constituted 15·5 per cent. of the whole mortality. This rate, however, was considerably exceeded in Paisley, where the deaths from measles alone amounted to 8·7 per cent., and in Leith, where 9·9 of the deaths resulted from scarlet fever. Whooping-cough was the most fatal of the miasmatic diseases, having caused 99 deaths, or 4·4 per cent. of the whole mortality. Fever caused 38 deaths, of which 9 were tabulated as typhus, 28 as enteric, and 1 as simple continued fever. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 482, or 21·3 per cent. Those from consumption alone numbered 280, or 12·3 per cent. Two males and three females were aged ninety years and upwards, the eldest of whom was a widow ninety-six years of age.

A meeting of local practitioners was recently held at the Bootle Borough Hospital, to consider the action of the Health Committee of that town in memorialising Parliament in favour of the proposed Act for the compulsory notification of infectious diseases. Dr. Carter was called to the chair, and Dr. G. C. Walker acted as hon. secretary. The meeting, though not very numerous, many gentlemen being unable to attend, was perfectly unanimous. The Chairman went into some lengthy details to show that the mortality of Bolton (where compulsory notification was originated) from infectious diseases showed no perceptible decrease, whereas these diseases had undergone a considerably greater diminution in Liverpool, where no compulsory measures existed. Dr. Wills spoke of the repugnance with which medical men generally contemplated the prospect of being made by law private detectives for the purpose of checking the spread of infectious diseases, and, after some discussion, it was agreed to draw up a memorial for local signature and presentation to Parliament. The memorial took the following shape:—"Your memorialists are of opinion that the proposal that medical practitioners shall be compelled, without any discretionary power, to report cases of infectious diseases to the sanitary authorities is an unwise and unwarrantable interference in the relations in which medical men stand to their private patients. They believe that the compulsory notification of disease by them is likely, in many cases, to lead to such an amount of concealment of the disease as may cause it to spread, owing to the absence of the usual medical treatment and precautions, and that there is evidence that extensive concealment exists in many of the towns where compulsory notification is the law. Moreover, they are convinced that there is no reliable statistical or other evidence that such compulsory notification by medical men has had any beneficial effect in such towns. They would therefore venture respectfully to ask that you would oppose any Bill in Parliament, whether general or local in its incidence, having for its object the imposition of the duty of compulsory notification of every case of infectious disease on medical men."

At a meeting of the Wednesbury Sanitary Authority, held at the beginning of this week, it was reported that during the past fortnight there had been thirty-three cases of small-pox in the district, four of which had proved fatal. It was resolved to urge the inhabitants to be revaccinated, and to use disinfectants extensively in their residences as well as in the public buildings. The disease has already broken out in some of the adjoining parishes, although special efforts are being made to prevent the spread of infection.

COUNCIL OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND.
The annual election of officers, pursuant to the provisions of the Supplemental Charter, took place on Monday, June 5,

and resulted as follows:—*President*: J. Kellock Barton. *Vice-President*: William Ireland Wheeler. *Secretary of the College*: William Colles. *Council*: William Colles, Richard G. H. Butcher, George H. Porter, James H. Wharton, Wm. A. Elliott, George H. Kidd, T. Jolliffe Tufnell, Edward Hamilton, Rawdon Macnamara, Robert McDonnell, Edward D. Mapother, Archibald H. Jacob, Henry Gray Croly, Edward Hallaran Bennett, Philip Crampton Smyly, John Denham, Anthony H. Corley, William Thornley Stoker, Samuel Chaplin.

THE GENERAL MEDICAL COUNCIL.

WE are informed that the General Council of Medical Education and Registration has been summoned to meet for business on Tuesday, June 27; and that a meeting of the Executive Committee will take place on the previous day, Monday, the 26th.

POST-MORTEM EXAMINATIONS IN HOSPITALS.

AT the Bow-street Police-court, on the 3rd inst., Mr. Flowers gave his decision in the case of Mr. Angel Money, the Registrar of the Great Ormond-street Hospital for Sick Children. It will be remembered that the charge made against the Registrar was of having unlawfully interfered improperly with the dead body of an infant, two years of age, named Robert John Maddick, on March 7, by cutting it. The mother of the child deposed that she took it to the Hospital on March 7, remained with it till midday, and then left, having told the resident medical officer that the child had had a fall. She returned at 6 p.m., and, after being kept waiting for some time, owing to a mistake in the name, was told that the child had died at a little after one. She was advised not to see her child then, but to call next morning at nine. She went at noon, but was told she could not see the body, as the doctors were engaged. She had the child removed by an undertaker in the evening, and when she looked at it she found that the body and the head had been opened. The case was taken up by the Vigilance Association; and Mr. Besley, who appeared for them, contended that there had been, by analogy, a contravention of the Anatomy Act, which provided against improper interference with, or indignities to, a dead human body; and he pointed out that by the 7th Section of the Act the consent of the nearest relative must be obtained to an anatomical examination. The sole object of the proceedings was, he said, to determine whether any person had a right to make an anatomical examination without previously obtaining the consent of the nearest relative. A notion seemed to prevail amongst hospital authorities, that a post-mortem examination might be taken as authorised unless notice to the contrary had been given by the nearest relative; and the Vigilance Association considered this was an erroneous idea. Mr. Avery, on the part of the Hospital authorities, said it was the practice in hospitals to make these examinations unless the parents had made a request to the contrary; and requests of this kind had frequently been complied with by the authorities of the Hospital in question. And, further, in this case, no certificate of the cause of death could have been given without a post-mortem examination; and without such certificate a coroner's inquest would have been necessary. He also argued that the 7th Section of the Anatomy Act did not apply in the case in question. Mr. Flowers, in giving his decision, said that, in his opinion, the Anatomy Act did not apply to the case; and observed that in one of the cases referred to by Mr. Besley, when the matter was argued last week, Lord Chief Baron Pollock had upheld that there was nothing wrong or against good feeling in the examination of a body. As to the passage in the draft of the proposed Criminal Code

which had been referred to, as providing by the common law certain pains and penalties for improper interference with and offering any indignity to a human body, it was not shown or alleged that in this case any indignity had been offered. The post-mortem had been conducted by the Registrar in a way that would not render him liable to an indictment. The magistrate added that he could not avoid expressing a wish that in this case the parent of the child had been consulted before the examination had been made, as by such a course the prejudice against it would have been considerably weakened.

It is not clear that Mr. Flowers' decision has really settled the question, to determine which the occurrence at the Ormond-street Hospital was raised to the dignity of a test case. The question raised was this—Can the authorities of any hospital legally make a post-mortem examination of any person dying in the hospital, without the previous formal consent of the nearest relative of the patient? Mr. Flowers' decision in favour of the Hospital authorities in this case appears to be grounded on the fact that in this instance the post-mortem examination had been conducted by the Registrar in a way that would not render him liable to an indictment: no indignity had been offered to the body. The inference seems to be that the legality or illegality of the act in question depends, or may depend, upon the manner in which it was performed; and, if it is so, nothing is settled. We do not, however, much regret this. We do not think it desirable, were it possible, to give to the hospitals authorities the legal right to make, if they see fit, a post-mortem examination of any and every patient dying in the hospital wards. Were it known that they possessed such a right, the knowledge would prevent hundreds of patients from entering the hospitals; and the power of those grand institutions for curing or relieving suffering and disease, and for teaching the art of healing, would be greatly restricted. The matter really in question is one to be managed by kindness, consideration, and tact, not by assumption of authority or assertion of legal rights.

COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

THE members of the Council of the Royal College of Surgeons who retire by rotation at the end of the present collegiate year are—Mr. John Marshall, F.R.S., Surgeon to University College Hospital, and junior Vice-President of the College of Surgeons; Mr. Henry Power, of St. Bartholomew's Hospital, and Chairman of the Board of Examiners; and Mr. Alfred Baker, of the Birmingham General Hospital. All these gentlemen seek re-election, and it is stated that the following Fellows of the College will also present themselves as candidates for office:—Mr. George Lawson, of the Middlesex Hospital—Member of the College, August, 1852; Fellow, December, 1857. Mr. John Croft, of St. Thomas's Hospital—Member, October, 1854; Fellow, November, 1859; and Mr. N. C. Macnamara, of the Westminster Hospital—Member, April, 1854; Fellow, June, 1875.

THE PARIS WEEKLY RETURN.

THE number of deaths for the twenty-first week of 1882, terminating May 25, was 1326 (700 males and 626 females), and among these there were from typhoid fever 50, small-pox 23, measles 41, scarlatina 4, pertussis 9, diphtheria and croup 60, dysentery 73, erysipelas 10, and puerperal infections 12. There were also 80 deaths from acute and tubercular meningitis, 227 from phthisis, 28 from acute bronchitis, 91 from pneumonia, 115 from infantile athrepsia (39 of the infants having been wholly or partially suckled), and 36 violent deaths (26 males and 10 females). This return, owing to the deficiency of last week, comprises eight days, so that for

the purposes of comparison with the other weeks one-eighth of the deaths will have to be abstracted—showing that the number of deaths registered for the week does not sensibly vary from that of the eighteenth or nineteenth weeks. Deaths from typhoid fever and puerperal infections have increased, while those from small-pox have remained stationary. The admissions to the hospitals for diphtheria, small-pox, and typhoid continue about the same as for last week—those from typhoid fever having during the month progressively increased from 60 to 73, 89, and 92. The births for the week amounted to 1424, viz., 712 males (507 legitimate and 205 illegitimate) and 712 females (522 legitimate and 190 illegitimate): 139 infants were either born dead or died within twenty-four hours, viz., 72 males (45 legitimate and 27 illegitimate) and 67 females (42 legitimate and 25 illegitimate).

DEATH OF DR. THOMAS BEVILL PEACOCK.

WE much regret to have to record the death of Dr. Thomas Bevill Peacock, who had for many years been one of the best known of metropolitan physicians and pathologists. In addition to various other able works he was especially distinguished by his valuable work "On the Malformations, etc., of the Human Heart," and his Croonian lectures "On some of the Causes and Effects of Valvular Disease." In 1876 the Council of the Royal College of Surgeons of England voted him the Honorary Gold Medal of the College in recognition of his presentation of his collection of pathological preparations to the Hunterian Museum. He was also the first to be elected an Examiner in Medicine to the College. In 1877 Dr. Peacock had a serious illness, which led to his retirement from some of the active duties of the profession. But he retained some of his public appointments, and on Wednesday, the last day of May, he had been escorting a party of friends round the wards of St. Thomas's Hospital, of which institution he was one of the Consulting Physicians, when he was seized with paralysis and became unconscious. He was removed to a private ward of the Hospital, and all possible attention was shown him, but he never regained consciousness, and died on the morning of June 1. Want of space forbids our noting his valuable services to the public and the profession more at length this week.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT THE annual meeting of the Fellows of the Royal College of Surgeons in Ireland, which was held on Saturday, June 3, two very important questions affecting the College were discussed. These were—first, a proposal to spend a large sum of money (some £3000 sterling) in providing a Physiological Laboratory for and otherwise improving the School of Surgery attached to the College; and, secondly, a proposal (of which notice was given at a meeting held on May 25 last) to take measures to dis sever the present intimate relations between the College and its School. The interest taken by the Fellows in the questions at issue may be inferred from the large attendance at the meeting, no less than 110 Fellows recording their votes on the first question. Mr. Chaplin, President of the College, presided. Only the first of the two questions mentioned above was discussed at the meeting, but the division upon it practically disposed of the second question. As to the proposed expenditure on the School buildings, a resolution was proposed and seconded, referring the subject back for reconsideration by the Council. An amendment was proposed, to the effect that the College was bound both by its interests and by its charter to maintain its School in the best possible condition. After a long debate the amendment was carried on a division by seventy-one votes to thirty-nine, exclusive of tellers. The amend-

ment was then put as a substantive resolution, and carried, the same division being taken. The action already taken by the Council of the College for the purpose of improving the School was thus endorsed by a majority of the Fellows. A vote of thanks to the President for his impartial conduct in the chair terminated the proceedings.

PROFESSOR BILLROTH ON HIS PORTRAIT.

THE *Wiener Medicinische Wochenschrift* gives an account of an interesting occurrence which took place recently at Professor Billroth's clinic, when a large crowd of former and present students awaited his arrival, for the purpose of handing over to the clinic the fine portrait of himself painted by Professor Angeli. After the loud applause which accompanied his arrival had subsided, he spoke as follows:—"Some years since, the pupils of my clinic, following an old custom of clinical Vienna, addressed a request to me that I should allow my portrait to be taken and suspended here. I could not bring myself to comply with this request, partly because it would be personally disagreeable to me to daily see myself exhibited in effigy as an historical personage, and partly because I was unwilling that my pupils should make any material sacrifice for this object. In the meantime, both these causes of my resistance have been removed. Professor Angeli has painted my portrait and presented it to the clinic; and this picture will, as long as I remain with you, be placed in the museum of the clinic. Later on, it may be then removed into one of the clinical wards. As Titian's portrait of Vesalius at Florence, and Rembrandt's portrait of Tulpius at the Hague, so may mine by Angeli remain in this place as a memorial of the union of Art and Science. I now hand over this portrait to the clinic, hoping that in regarding it some later generations will bear me in friendly remembrance."

THE CHAIR OF MORPHOLOGY IN THE UNIVERSITY OF CAMBRIDGE.

MR. F. M. BALFOUR, F.R.S., was on Wednesday, May 31, elected to the new Professorship of Morphology at Cambridge. Mr. Balfour was a student of Trinity College; graduated in the first class of the Natural Sciences Tripos in 1873; was shortly after elected to a Natural Science Fellowship at Trinity College; and then devoted himself to working at and teaching embryology and morphology, in the study of which he acquired great distinction. He was ere long elected a Fellow of the Royal Society, and last year he had the honour of being awarded one of the medals of that Society. It is known that he declined very tempting offers of Professorships at Oxford and Edinburgh; and it is said that the new Professorship at Cambridge was especially created in recognition of his faithful attachment to his own University. It is certain, however that may be, that his appointment as Professor of Morphology will not a little add to and strengthen the science teaching in the University of Cambridge.

DEATH OF PROFESSOR HUETER.

THE distinguished surgeon, Professor Carl Hueter, of Greifswald, has just died in consequence of kidney-disease at the age of forty-four. After terminating his studies, he was in 1863 appointed assistant in the Berlin Pathological Institute, under Virchow, and after having been assistant in Langenbeck's clinic, he became a Privat-docent of Surgery in the Berlin University. In 1868 he received a call to Rostock as Professor of Surgery, remaining there only a year, when he was appointed to the chair at Greifswald. His works on Pyæmia and Joint-Disease are especially worthy of study. He was an ardent follower of Lister, and did much to spread

the use of antiseptics in Germany. Very recently he had completed and published a most valuable treatise on Surgery generally. His death is a great loss to German surgery.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

THE annual meeting of the friends and supporters of this excellent Society was held in the large hall of the King and Queen's College of Physicians, Kildare-street, Dublin, on the afternoon of Monday, June 5. Dr. George Johnston, President of the College, occupied the chair. Mr. Arthur H. Benson, one of the Honorary Secretaries, read the fortieth annual report, setting forth the continued prosperity and usefulness of the charity, which, notwithstanding the distracted state of the country, has met the many claims upon it with its usual liberality. The report referred in sympathetic terms to the removal by death during the past year of many staunch supporters of the fund, including Dr. Alfred H. McClintock, Dr. Thomas Hayden, Mr. Hans Irvine, and Dr. Charles Purdon, of Belfast. Numerous applications were received for consideration at the annual distribution. Of these, five were from medical men; eighty-seven were from the widows of medical men, twelve of whom were applying for the first time; and twelve were from orphans, three of whom were new on the list—making in all 104 applications, fifteen of which were new. It is difficult to estimate the immense value of the grants thus made, but a few instances may serve to show how timely assistance is offered. One medical man was, by a grant of £50, enabled to emigrate to South Africa, where he expects to earn a livelihood, which from circumstances he was unable to do in this country. By a grant of £30 a widow lady was helped to emigrate with her six children to New York, where friends had promised her a home. By grants given at critical moments, many have thus been saved from penury, and enabled to earn an honest and honourable livelihood in situations which, but for the help given by this Society, they would have been unable to attain. To many medical men disabled from work by age or disease, this Fund has also supplied most important help. During the past year, anticipatory grants to urgent cases have been made to the amount of £65, besides which £1024 has been adjudicated in the awards recommended to be made at the present (the thirty-fifth annual) distribution—of which sum £155 is to medical men, £741 is to widows, and £128 is to orphans. Dr. William Thomson, the Honorary Treasurer, having submitted a statement of the accounts, the adoption of the report was moved by Professor William Moore, seconded by Mr. Edward Hamilton, and carried unanimously. The election of officers and other routine business was then proceeded with.

GERMICIDE TREATMENT OF LEPROSY.

SURGEON-GENERAL JOHNSTON, M.D., has chosen the *Times* as the medium of a remarkable communication on the treatment of leprosy. He has chosen that newspaper, because what he has to say bears out the view of the nature of tubercle which he has lately read in its columns, and that newspaper (of June 3) has given a prominent place to his long letter, doubtless for the same excellent reason. As we are entirely free from the pride which would prevent us from gleaning pathology and therapeutics even from the daily press, we subjoin a brief summary of the Surgeon-General's communication. The treatment which he recommends was carried out some ten years ago in three leper hospitals "existing within the wide circle of his administrative duty in the Southern Presidency of India." Although no names are given, the three leper hospitals were doubtless those of Madras, Cochin, and Bangalore; and we men-

tion the names in the hope that this may meet the eye of the medical officers who were in charge of them about the year 1870, and who will perhaps know where to lay their hands upon the records. The lepers chosen to undergo the treatment were of the worst class—starved, miserable, mutilated. A vapour-proof dress was put on the leper's body, and drawn tight at the neck. A quart of carbolic acid solution (three parts of Calvert's fluid acid to seven of water) was then put into a vessel having a long spout, and one end of an elastic tube was fixed on the spout, and the other end introduced under the vapour-proof dress. A lighted spirit-lamp was put under the vessel, and the vapour made to pass to the leper's skin, which had been previously sponged with tepid water having a piece of washing-soda dissolved in it. These are all the details of treatment that Surgeon-General Johnston gives. We are not told how often this simple form of vapour-bath was repeated, nor are we told how the treatment of the face was managed. From this brief description we come, in fact, directly to the results obtained. He was "scarcely prepared for the results which followed the treatment during the time that it was conducted in those leper hospitals—results which, to impartial observers who witnessed it, were almost conclusive of the correctness of the views which had led to its adoption,"—views, namely, which anticipated the recent discovery of the bacillus of leprosy by Hansen and by Neisser. Moreover, "In the few cases treated in the earlier stages, the results were equally satisfactory, the cure of one case, that of a Sepoy, having been reported by Surgeon-Major Cook, M.D., of the Madras Army." That is all that is said of results. We could well wish that the references to the last case, and to published reports of the other cases, had been given, for the sake of professional readers of the *Times*. It is hardly conceivable that facts so important should have remained unpublished for ten years, and then only been mentioned as a kind of tag to Professor Tyndall's biological *rechauffés*. But, if that should be so, it is now Surgeon-General Johnston's duty, in the interests alike of humanity and science, to see that there be no further delay in furnishing complete histories of the methods adopted, the condition of the patients treated, and the cures effected. The daily papers will hardly care to have all the little details, but need we say that the medical press is ever ready to open its columns to methodical and accurate records of observations, even if the conclusions that they lead to have not one-thousandth part the interest attaching to a cure for leprosy?

THE LATE PROFESSOR SKODA.

HOFRATH FRANZ RITTER VON SKODA, in memory of his deceased brother, Prof. Dr. Joseph Skoda, has just presented to the Burgomaster of Vienna the munificent sum of 20,000 Austrian florins as a contribution to the Charitable Fund.

THE PORT OF LONDON SANITARY REPORT.

THE half-yearly report of Dr. William Collingridge, the Medical Officer of Health for the Port of London, dealing with the six months ending on December 31 last, again treats at some length of the condition of the Thames. We published some time since the report of the sub-committee appointed by the Port Sanitary Authority to investigate this subject; it is only, therefore, necessary here to notice that Dr. Collingridge protests against delicate chemical analyses as a means of proving or disproving the pollution of the river, the matter being one upon which any person possessed of the ordinary senses of sight and smell is perfectly competent to give an opinion. Fresh unmistakable fæces, he says, float upon the surface of the stream at times—a condition of things scarcely creditable to a great nation, and certainly demanding

legislative interference. In the face of this description of the state of the Thames, some credit should be given to those who have the management of the various training-ships in the river, since the report affirms that the health of the boys during the six months under notice has been extremely satisfactory, there having been almost complete immunity from infectious disease. During October two cases of scarlet fever occurred on the School Board ship *Shaftesbury*; these were at once sent on board the *Rhin*, and a few suspected cases were sent on shore, and by these prompt measures any further spread was prevented. The vessel was at this time increasing her complement of boys, and new boys were being sent straight from their homes to the ship. It seems highly probable, the report adds, that in this way infection was conveyed to the ship—a source of danger which might easily be avoided by causing all new arrivals to perform “quarantine of inspection” for ten days or a fortnight at some building set apart for that purpose on shore, before being drafted on board. During the half-year under notice seven cases of small-pox were removed from vessels under the jurisdiction of the Authority; in nearly all the cases the vessels had been lying in port for some time, and the disease was clearly contracted in London. Fumigation of the men’s quarters was carried out in every instance. From time to time, the report observes, many complaints have been made to the Authority as to the presence of the small-pox ships *Atlas* and *Endymion*, moored off Deptford; but although, so far as the traffic on the river is concerned, this is a most unsuitable position, up to the present time there has been no single case in which infection has been traced from them, nor, indeed, has any complaint been well founded. In spite of this Dr. Collingridge states that it will be a great relief to see them removed to a lower part of the river, where they may unquestionably safely lie. One complaint, we are informed, was made by a riparian authority, who called attention to the danger of infection from the excreta of the patients, the same authority having had a large number of small-pox cases within its limits, and a large number of foul outfalls into the river. The only other cases of infectious diseases recorded were one of fever and one of typhoid fever. It is satisfactory, also, to learn from the report that both police and Customs work so much in harmony with the officers of the Port of London Sanitary Authority, that proceedings are rendered easy which would otherwise be very difficult, and at times even impossible.

A MEDICAL STUDENTS’ CLUB.

A MEETING was held at Anderton’s Hotel, Fleet-street, on Saturday, June 3, of medical students from the various hospitals, when it was decided to form a Medical Students’ Club. It was also resolved to hold meetings at each hospital during the ensuing week, and the names of gentlemen who kindly undertook to conduct these meetings were taken.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

PROFESSOR HUTCHINSON’S course of six lectures “On Temperament, Idiosyncrasy, and Diathesis,” are now being delivered in the Theatre of the College, on Fridays, Mondays, and Wednesdays, at 4 p.m. The following is the syllabus of the lectures:—Lecture I. (Friday, June 9).—On Temperament: Introductory observations—Definition of terms—Relations between temperament and race—Sources of error—Relations between temperament and idiosyncrasy—Mixed temperaments—Temperament, how estimated; pigmentation, hair, features, and general physiognomy, etc.—Want of knowledge as to the relative proportions of the temperaments in the British population—Signs of diathesis often mistaken for those of temperament—Value of the

study of idiosyncrasy and diathesis in relation to surgical practice. Lecture II. (Monday, June 12).—On Idiosyncrasy: On idiosyncrasy in relation to diathesis—Idiosyncrasy in respect to structure and to function—In reference to articles of food; examples—In reference to certain dietetic stimulants and sedatives—In reference to drugs; examples (iodides and bromides, arsenic, belladonna, etc.)—Importance of the record of idiosyncrasies shown in early life. Lecture III. (Wednesday, June 14).—On Idiosyncrasy, *continued*: Idiosyncrasy in reference to common causes of disease—In reference to specific animal poisons—Varicella—Vaccinia—Scarlet fever—On certain special diseases which appear to be influenced by idiosyncrasy; erysipelas, diphtheria, carbuncle, etc. Lecture IV. (Friday, June 16).—On Diathesis: Definitions—Subdivisions according to modes of origin—Specialised diatheses: hereditary, transmissible—Food as a cause of diathesis—Race and climate as causes of diathesis—Specific animal poisons—Compound or mixed diatheses—On the value of certain symptoms which reveal diathetic states—Retrospective symptoms—Immunities conferred by certain diatheses. Lecture V. (Monday, June 19).—On Special Symptoms which reveal Diathesis: Acne—Psoriasis and its allies—Xanthelasma—Eczema—Various conditions in the course of syphilis—Warts and papillary growths—Iritis—Diseases of the tongue. Lecture VI. (Wednesday, June 21).—On certain Special Diatheses, *concluded*: Catarrhal diatheses—The rheumatic diathesis—Peculiar conditions of the circulation, with liability to chilblains, last-joint arthritis, and gangrene—The influence of loss of tone in permitting the display of diathetic tendencies—Summary: On the laws of genesis and perpetuation of diatheses—Concluding remarks.

THE Hebdomadal Council of the University of Oxford has appointed Sir James Paget, Bart., D.C.L., to act as an Elector to the Waynflete Professorship of Physiology on the occasion of the ensuing appointment.

THE medical profession will be grieved to hear of the death of Mr. James Spence, Professor of Surgery in the University of Edinburgh, in the seventieth year of his age, on June 6. He had been for several months out of health. On the 26th it was found necessary to amputate three of his toes. On June 1, gangrene attacked the foot, and the patient gradually sank. We shall in a subsequent number give some account of his life and work.

OUR readers will be glad to know that Sir Erasmus Wilson is decidedly regaining health and strength in this more summer-like weather. He has not yet left his room, we believe, but he is now up for some hours daily, and permitted to show practically his unceasing interest in the proceedings of the outside world.

PROFESSOR PORRO has just been transferred from Pavia to the vacant obstetrical chair at the Maternity of Santa Caterina at Milan, where much larger clinical opportunities await him.

ZOOLOGICAL LECTURES.—Professor Flower, F.R.S., the President of the Zoological Society, commenced the annual course of popular lectures in the gardens of the Society on Thursday last, the 8th inst., and delivered a very interesting lecture on “Armadillos, Living and Extinct.” Lectures will be continued on succeeding Thursdays, at five o’clock, by Messrs. Boyd Dawkins, W. K. Parker, St. George Mivart, W. A. Foster, P. M. Duncan, and P. L. Slater. It is not generally known that these lectures are free to all visitors to the Gardens.

TRANSACTIONS OF THE BRIGHTON HEALTH CONGRESS, 1881.

THE Brighton Health Congress was not held in connexion with the Sanitary Institute or any other similar association, but was a purely local and voluntary movement, undertaken with a view to evoke a popular interest in sanitary questions, and intended to set an example to other provincial centres of intellectual life.

The presidential chair was filled by Dr. B. W. Richardson, whose constant efforts to popularise the teachings of sanitary science are so well and widely known.

The business of the meeting was divided between the three sections of Health of Towns, Food, and Domestic Health, respectively presided over by Mr. E. Chadwick, Mr. Hollond, M.P., and Dr. A. Carpenter.

Dr. Richardson chose for his opening address the title of "The Seed-time of Health," insisting on the importance of laying early the foundation of a healthy and vigorous life by eliminating those causes of disease and premature decay which he classified as inherited, accidental, acquired, and inflicted perils. He began by describing the funeral of an infant among the ancient Greeks, conducted in the dark and silent night, that the sun might not behold the shame of a young life cut off in the spring-tide of its existence. We are sorry to be compelled to spoil so exquisite and, were it true to nature, so instructive a picture; but we fear that classical criticism will dispel the allusion. We much doubt, whatever care was bestowed on the physical training of the Greek youth, that infant deaths were so rare as such a practice would imply. But, as a mere matter of fact, nocturnal funerals were, after the heroic age at least, confined to the Athenians, and if we may credit Cicero ("De Legibus," ii. 26), it was enjoined by Demetrius Phalereus as a check on the growing abuse of excessive and costly display, and consequently could not have been intended to apply solely or even chiefly to the funerals of infants. In an earlier age the corpse of Achilles was burned in the dead of night (Odyssey xxiv. 72), but he was not a child. However, stripped of its poetry, Dr. Richardson's address is still an impressive and valuable one, directed against one of the darkest blots on our boasted civilisation—the fearful, we might say criminal, waste of infant life, especially amongst the poorer classes of our urban populations.

Mr. Chadwick, with pardonable egotism, repeated the oft-told tale of the Board of Health and the retrograde policy inaugurated by the Metropolitan Local Management Act, the author of which, Lord Hanover (then Sir Benjamin Hall), was, as Mr. Chadwick sarcastically observed, rewarded with a peerage for inflicting on sanitary progress in London a blow from which it can never wholly recover. He insisted on the close relation subsisting between defective drainage and insanitary surroundings generally and the prevalence of fever and diarrhoea, but we cannot agree with the undue prominence he gave to "climatorial influences" in the progress of epidemics, even the evidence supplied by Indian observers of cholera being, we believe, explicable in other ways.

Mr. Ellice-Clark read a paper of the highest practical value, "On the Anomalies in the Administration of the Sanitary Laws." He deprecated the growing tendency to introduce party politics in municipal elections, and lamented the general absence of medical men from boards, one of whose most important functions is the care of the health of towns. The exemption of existing buildings—those, in fact, erected before the rudimentary principles of sanitation were recognised—from the provisions of the Sanitary Acts, he condemned as a grave error, maintaining that property has its obligations as well as its rights, and that if the enforcement of every clause of the Buildings Acts would inflict a hardship on the owners of old house-property, the cardinal points of sanitation should be insisted on. A like mistake has been committed in the omission of all reference to mews, in the by-laws regulating the width, etc., of streets, the result being that a man may crowd any number of human beings and animals in an area in which he would be forbidden to lodge the former alone. Among other defects to which Mr. Ellice-Clark called attention were the conflict of authorities; each with its own set of by-laws. In some places there were twelve different sets

of regulations existing in contiguous districts, and several in the same towns; while the model by-laws issued by the Local Government Board, though excellent in themselves, are so exacting and needlessly minute that in rapidly growing districts, as the suburbs of London, it would be impossible to see them carried out without an army of surveyors or inspectors. Demanding too much, these by-laws become in practice dead letters.

Mr. Lester raised the question of Slaughter-house Reform, urging, on sanitary, humanitarian, and even economic grounds, the establishment in every large town of public abattoirs like those of Paris, Brighton (U.S.), and Manchester. The facilities they afford for the inspection of the animals, and the exclusion at the outset of all diseased ones, are perhaps the strongest arguments in their favour. The excessive compensation for the transfer of their business demanded by the butchers, who are fully aware of the advantages of privacy in this matter, has in several places led to the abandonment of such schemes, and calls for legislative interference.

Mr. Hollond, discussing the production, distribution, and economic use of Food, advocated entire freedom on the part of the farmer as to the purposes to which he applies his land. He adduced the opinion of Mr. Lawes and other scientific agriculturists, and the actual experience of several practical farmers (who, from being themselves owners or otherwise, enjoy such liberty), that by the drainage of pasture and the devotion of arable land to root culture and garden produce large returns might be had from land which at present yields little or no profit. The unlimited supply of corn from the Western States of America tells as heavily on the farmers of the Eastern States as on those of our country, but they, being entirely free to act as they think best, have already adapted their practice to their altered circumstances. At the same time, justice demands a reduction of the railway charges for the carriage of garden produce; in France and Belgium the railway companies offer every possible facility in this respect. That the present agricultural depression in England cannot be relieved by any succession of good seasons or by anything short of a revolution in the whole practice of farming, and by the application of the land to other purposes than the cultivation of corn, was confirmed by Mr. Follett Halcombe. That authority showed that even the Western States of America have already a powerful rival in New Zealand, whence, owing to the absence of any land-passage, wheat can be brought to London at a charge of 1s. 7½d. per bushel, or only one penny more than the freight from Chicago. Under these circumstances it seems monstrous that we should be indebted to France, Belgium, and even Italy, for garden produce which could be grown as well at home.

Dr. Drysdale marred an otherwise instructive paper on Food and Longevity by pointing to limitation of families as the sole remedy for the high price of food. Like others of the same school, he holds up for limitation the example of the French, but is silent as to the means whereby this desirable (?) state of things is effected, and ignores the obvious solution offered by emigration, which Mr. Halcombe's glowing picture of the resources of New Zealand could not fail to have suggested to anyone not possessed by the Malthusian craze.

Mr. T. B. Lightfoot contributed a paper on the Preservation of Meat by Cold. He explained that owing to the greater elasticity of animal tissues they are not disintegrated by freezing, as are those of vegetables; but that if the freezing be delayed until after coagulation of the albumen has taken place, thawing is followed by speedy decomposition. If, again, the meat in transit be exposed to air cooled down, but not deprived of moisture, the excess of vapour over the capacity of the air at its lower temperature is absorbed by the meat, with detriment to the flavour. To the neglect of these considerations was due the failure of the American meat to establish itself in the English market. He then showed how, by freezing the meat before coagulation, and avoiding the presence of water in suspension in the air, it may be imported even from Australia and Buenos Ayres in a condition indistinguishable by microscope or palate from meat freshly killed. In the process he described the air is cooled to a temperature of 50° Fahr. by the expansion of previously compressed air, the heat evolved in the compression having been conducted away. This is mixed with fresh air, the excess of vapour condensed as snow, ready to be taken up again as

the capacity of the air may require. Meat and fish may be so preserved for months. Coagulation does not occur until they are thawed, and they then show no greater tendency to decomposition than if they were but recently killed.

Mr. Wynter Blyth's paper on Rational Feeding contained nothing new, but, addressed to a popular audience, could not fail to do good, as being an exposition of the theory of alimentation in general, and of the dietaries specially adapted to each age, and to the different habits and circumstances of individuals.

The same may be said of Dr. Carpenter's address on Domestic Health, and the two practical papers of Mr. Collin and Dr. Strong on Domestic Sanitary Arrangements, in which the common dangers to health in our houses were clearly and concisely indicated, together with the means whereby they may be avoided. As sanitarians we welcome all such efforts at the diffusion of sound knowledge of this kind among the public.

Mr. Henry Stephens, in a paper entitled, "The Aspect of Public Elementary Education in relation to Public Health," advocated the teaching of elementary science as being knowledge of the highest practical value to the children of the working-classes in after life, both as a personal safeguard and as a means of earning a living. He argued that in every trade and occupation there is scope for the practical application of an acquaintance with physics and chemistry, and that such teaching would enable them better to avoid the dangers to which they are exposed in their employments, as well as to realise the importance of pure air, pure water, proper food, and the laws of health in general. Even to the teaching of history he would give a more scientific character, substituting for a mere string of kings, battles, etc., the political and social development of nations, and the growth of our constitution. While vindicating the value of science, properly taught, as a means of mental training, he insisted on the paramount necessity of physical health for the success in life of the individual, and thus to the prosperity of the nation.

Major Edis treated the question of Domestic Sanitation from an artistic point of view, showing that the truest taste in decoration may be made conducive to the demands of sanitary teaching. Dr. Taaffe gave a good *resumé* of the Propagation of Disease, beginning with the natural history of entozoa, and passing on to the latest developments of bacterial pathology.

Several other papers of greater or less merit were read, which we have not space to mention. Taken as a whole, the gathering at Brighton will compare favourably with any hygienic congress with which we are acquainted.

FROM ABROAD.

NEURECTOMY IN FACIAL NEURALGIA.

In the *Philadelphia Med. News* for March 11 is reported a clinical lecture by Dr. Weir Mitchell on a case of severe facial neuralgia occurring in a woman, forty-three years of age, who since 1876 had suffered from this affection. We refer to it, not because it is remarkable, but for the sake of some of the interesting observations which always accompany Dr. Mitchell's communications. "In every such case as this," he observes, "where clearly no obvious local cause of pain can be made out, we are forced back upon two sets of measures—an effort to relieve the general nutritive defects which cause pain; and with this, or failing in this, a course of what is always more or less experimental therapeutics, that is, the use in turn of various drugs like quinia, gelsemium, aconite, veratria, croton-chloral, and morphia—agents which alter the sensorial centres or the conductors in some such way as to lessen pain, and sometimes to do away with the cause of pain. It is hard to say succinctly more than this of these means; but, whatever their value, it is increased, or their use in some cases made needless, by a long and thoroughly systematic effort to lift the general health above that level at which pain is one of the many evil probabilities. But these means had in this instance failed, and the various drugs used in neuralgia had no better fortune, while happily my patient had escaped the habitual use of morphia."

After a full trial of galvanism had proved useless, it was

resolved to resort to neurectomy. The maxillary nerve, the original site of the neuralgia, which afterwards affected other branches on that side of the face, was exposed by a small trephine, and after it had been stretched, half an inch of its substance was cut away.

"My desire to destroy so much of the nerve arose from a but too large knowledge of the ease with which cut nerves reunite. There was a wonderful illustration of this repair of nerves in a case of painful neuroma of the skin (Duhring, *American Jour. of the Med. Sciences*, October, 1881) for the relief of which the late Dr. Maury excised a portion of the nerves of the brachial plexus. Although the pain, in that case, was relieved for several months, within a year it became violent, and two years later was as severe as before. At the autopsy, six and a half years after the operation, the man being eighty-three years of age, the cut ends of the plexus were found to have completely reunited. The connecting band was an inch and a half in length, remarkably strong and thick. This is a most notable fact, for while repair is rapid in the young, and very, very rapid in young animals, it has been generally supposed that the nerve-ends could not re-unite in old subjects. It is important, therefore, to be careful to remove a large piece of the nerve, and perhaps it is almost as well to simply stretch the nerve as to cut out a piece of it. There is, in fact, no way, as yet tried, to prevent the extremities from re-uniting—even doubling the ends over and pinning them back having failed in my experience. I have known cases where neither the second nor even the third division of a nerve has precluded the re-uniting of the ends. There is another case of mine on record where from one to three inches of the nerve was removed three times in succession, but where complete restoration took place. When it becomes desirable to think of nerve-section or stretching, it is as well to have a clear idea of why we are to resort to an operation. A distinct reason for it exists when it seems probable that the irritative cause lies at the periphery, and may, by operation, be cut off from the sensorium which it disturbs; but also, in cases in which the cause is dubious or central alone, there yet may be two reasons for a section—first, because section or stretching in some way reacts on the centre, so as to lessen its pain-making capacity; and second, because in most old neuralgias of plainly central birth the peripheral-skin territories become sensitive, and are then easily played upon by external influences, which, in turn, exasperate the abnormal centre, and produce incessant attacks of pain. It is well, also, to know in what nerve-filament the pain first started, since, in my view, that is the nerve to stretch. In the present case the pain had extended widely, in accordance with a law which seems to govern such cases—a law of diffusion of sensitiveness. At first one group of ganglia suffers, and then, as if the heightened capacity to cause pain were contagious, it is propagated to others; until at first near, and then distant, groups of cells are what I like to call 'sensitised,' much as is seen in another fashion in tetanus.

"It is my custom in all neuralgias to ask what causes pain, and what lessens it. In a large number of cases I am told that exposure to cold will bring on or increase an attack. Why cold air should have this effect, why it should be more hostile than heat, I cannot say. Nothing in medicine, however, is more sure than that in certain maladies the surfaces of the body acquire an increase of susceptibility to cold, and that a cool draught of air is competent to awaken or cause pain, as it is not in health. I showed, years ago, that in healthy birds, if we subject the naked skin to sudden chill, we may cause the most remarkable phenomena in the way of convulsions or sleep; but in normal man, only the interior of the outer ear is able, on exposure to abrupt changes of temperature, to give us like phenomena. When, however, the centres have been irritated by disease, we seem to acquire an increased tendency to respond to atmospheric changes, so that in neuralgia, rheumatism, sclerosis, and the like, we become responsive in some way to impressions which are without notable influence on the healthy frame. The period of time required for an abrupt cooling of the skin to occasion pain or other phenomena, is another matter for thought. In some very sensitive cases a few minutes suffice; in others the result follows after much longer periods. In birds, the vertiginous symptoms which follow the application of cold to limited skin-spaces require a certain length of time, from two to ten minutes. You will find, as a rule, in nearly all old neuralgias, wherever

situated, that motion of parts concerned, or even of parts physiologically related to them, will cause or increase the pain. In sciatic neuralgia, especially of neuritic or rheumatic birth, there is an obvious mechanical explanation of this in the pinching of the tender nerve; and it will be found that the efforts of defæcation, and more rarely of urination, give rise to like results. In facial neuralgia the explanation is less easy, since in any fifth-nerve neuralgia, but most notably in that of the second and third branches, talking, chewing, laughing, and even deglutition, cause or increase the pain. In these extreme cases, any sensation about the face, as a rough touch or gentle friction, may be equally able to effect a like result: so that perhaps it is the awakening of the normal sensations which in all cases accompany physiological motor activities, that in some way arouses the morbid, pain-making capacities of a hyperæsthetic sensorium. At all events, these facts are found only in old and tenacious neuralgias. The pains capable of being reproduced by almost any ordinary influence affecting the skin, and also by almost any facial motor activity. You will see now and then cases in which severe but transient pain arises in certain people whenever they are abruptly exposed to great cold or to damp and cold.

"Also, it is worth knowing that the steady use of moderate, stable currents over and through the exit points of the fifth nerve is competent to relieve this condition; but in this, and in the early stage of any facial neuralgia, the first thing to think of is the patient's general condition. Cod-liver oil, tonics, and change of climate are of more value than all the violent drugs to which hasty therapeutists, driven by a sufferer impatient of pain, are apt to resort. I wish to say a word about the teeth. In any neuralgia, have them looked over carefully by an expert, and let him not forget to ascertain if there be a catarrhal trouble of the antrum; but never draw a sound tooth, or even a filled tooth, on no more evidence than the presence of a neuralgia. Bad teeth are rare causes of grave and persistent neuralgia. When seeing many neuralgic cases, you will observe that the attacks come, by preference, at certain times of the day or night. For this there must be some distinct reason; but as yet the subject has been insufficiently studied, and regularity of attack is apt, without other reason, to induce the belief in a malarial cause. And since, in all fifth-nerve neuralgias especially, quinia is often a good remedy, the triumph of this drug is apt to be regarded as a fair confirmation of a theory which is certainly false in most instances. As a rule, with many exceptions, fifth-nerve neuralgias are prone to recur early in the day or before noon, and sciatica to be worst at night, even if the patient be constantly in bed. In some cases, and before the disease is constant and the attacks frequent, and especially in stump and other traumatic neuralgias, the attacks are nearly all traceable to storms. But in others the choral relations of such pain seem to be due to physiological laws which are as yet wrapped in complete mystery."

This case was operated on in May, 1881, and Dr. Mitchell reports the woman as continuing free from pain up to February, 1882, adding that he should not be surprised were she to return with a reconstructed nerve and a renewal of the pain.

BORATE OF QUINOÏDINE.—This substance, prepared by M. Vrij, of the Hague, is an amorphous powder soluble in three parts of cold water. This facility of solution, added to its alkaline reaction, render it superior to the sulphate of quinine for hypodermic injections—100 parts of the borate contain fifty-four parts of pure quinoïdine, the cost of which is only a twelfth part of that of quinine. Trials made in Holland have shown that in ordinary fevers one gramme of quinoïdine produces the same results as sixty-centigrammes of quinine.—*Union Méd.*, May 30.

ADMINISTRATION OF TANNIN.—Tannin given internally often gives rise to bad effects when administered as a powder or in simple solution, either by proving inert or by inducing pain or inflammation in the stomach or intestines. At the Leipsic Polyclinic, these inconveniences are obviated by means of the following formula, which provides an astringent mixture of an agreeable taste, so that it is taken even by children:—Tannic acid, two grammes; water and albumen of egg, of each 100 grammes—stirring vigorously when the albumen is added.—*France Médicale*.



PHILADELPHIA, May 12.

STATISTICS OF THE CÆSARIAN OPERATION.

SIR.—It seems to be almost impossible to convince the medical profession here and in Europe that the Cæsarian statistics of the United States, as collected and published by me, are an honest representation of the results of this operation as performed here. The facts claimed are as follows:—

1. I have been thirteen years in search of the cases.
2. There have been collected by correspondence 55 unpublished cases, some dating back sixty years, and of these 55 there were 15 women saved, or 27 $\frac{1}{2}$ per cent.
3. There have been collected from published records 70 cases, and of these 38 were saved (54 $\frac{2}{3}$ per cent.).
4. It is a mistake to claim that withheld cases are almost always unfavourable, as some of the best in the United States were never sent to the editors of journals for publication.
5. You will not find in Dr. Radford's table the case of the woman in Sheffield, England, upon whom Messrs. Jackson (father and son) operated, at an interval of seven years. Here was the only repeated Cæsarian operation upon the same subject in Great Britain left unreported.
6. I claim also that of the 124 operations in the United States, but 28 were performed in good season, and that of these cases 21 were saved, or 75 per cent.; and 80 per cent. of the children were delivered alive.

We have, then, a saving, in 124 cases in this country, of 53 women, or over 42 per cent.

In the whole of North America, *i.e.*, the United States, West Indies, and Mexico, there have been 132 Cæsarian operations, saving 60 women, or 45 $\frac{1}{2}$ per cent.

In the year 1880 there were 5 Cæsarian operations in the United States, saving 3 women and 4 children. Four of the five women had their uteri sutured, and three of the four were saved.

We may speculate about the reasons why this operation has been so much more fatal in Great Britain than in the United States, and place the difference to delay, intemperance, poverty, or what we please—but these are the facts. I am not one of those who put the blame upon dilatory action, for I am satisfied that the operation is much more fatal with you, even under prompt action, than it is here. In all the history of this city there have only been four Cæsarian operations, and these saved 50 per cent. of the women and all the children. One woman was lost by delay, and the other by strangulation of a knuckle of intestine in the uterine wound.

I am, &c.,

ROBERT P. HARRIS, M.D.

EGYPT.

CAIRO, May 31.

BILHARZIA AND ANCHYLOSTOMA.

In the *Medical Times and Gazette* of the 20th inst., I found an article, "Distribution of Anchylostoma," where, with not a little astonishment, I read that the author shows the identity of Anchylostoma with the Bilharzia.

Now, I cannot tell on what arguments the author lays claim to this identity, for it is notorious among both helminthologists and medical men that the two worms are quite different, and that their geographical distribution is not precisely the same.

Anchylostoma, discovered by Dubini, is a nematode which lives in the first portion of the intestine, while *Bilharzia hæmatobia* is a trematode (distomidæ) which lives in the blood of the portal veins and of the vesical veins. *Anchylostoma*, which for the first time was detected in Egypt by Pruner Bey, besides in Egypt is rather prevalent in some parts of Italy and other European countries, and it has been detected lately also in India by Dr. MacConnell; whilst *Bilharzia* or *Distomum hæmatobium*, discovered in Egypt (1851) by the late Dr. Bilharz, has been till now well ascertained only in African countries. The diseases generated

by the two worms are quite different, as I hinted in my paper on "Filaria," which was read lately at the Epidemiological Society, and has since been published in the columns of your valuable journal.

This is not the moment to dwell upon the question as to the pathogenetic process of the pernicious anæmia produced by anchylostoma, but I think that I have sufficient ground to feel sure that anchylostoma must be regarded as a dangerous hæmatophagus worm, like the equini worm (*Strongylus* or *Silorostomum armatum*), and that the loss of blood caused by the wounds made by the anchylostoma tends in a certain manner to give rise to grave anæmia, when a large number of worms, viz., many hundreds, are found in the intestine of a single individual. For this subject I may refer to the several papers published by me in 1878, in the medical paper *L'Imparziale* of Florence (Italy), about Anchylostoma.

I am, &c.,

DR. SONSINO.

P.S.—I take this opportunity to let you know that in my paper on "Filaria," at page 523, line 19, instead of "urine is favourable," must be read "urine is *not* favourable."

GENERAL CORRESPONDENCE.

THE SAMARITAN REPORT AND ANTISEPTICS.

LETTER FROM DR. H. SAVAGE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I venture to ask for a small space in your next impression for the following observations on your comments on the above matter, which appeared in your journal the week before last, and which have been productive of much astonishment, disappointment, and pain; and no wonder. The tone of the article suggests the idea of a high-priest Listerian demanding a victim. If candid statements in a hospital report, of issues, good and bad, are to be treated after this fashion, surgery will not be the gainer by many of them.

Nothing in the world is more likely to provoke dissension and ill-will amongst the members of a hospital staff than comparative statements in yearly reports of each man's performances. It is properly assumed that everyone does his best; besides, has he not the journals ever open to his self-assertions?

I have been for thirty years editor of our Reports, and never knowingly consented to this course. In the Report of this year the old custom has been, unfortunately, departed from at the instigation of one of the Surgeons; the result is what we now see—personal insinuations, and, it is to be feared, enduring dissension, damaging to the interests of the institution, between two of its medical officers. For no one will ever be brought to believe your article has not been inspired by a partisan; you could have no personal feeling in the matter.

Whether the five cases held to be exemptions should stand out, I leave to general opinion, merely observing that the particulars you seem to require in regard to the alleged instances of shock, hæmorrhage, and intestinal obstruction, would neither add to nor take away from the received import of those terms. Your suggestion of their true meaning being acute septicæmia is, of course, inadmissible.

As to our future "retrogression," about which you are good enough to express some anxiety, I can assure you that since the regretted retirement of Mr. Wells I have perceived no sign of it.

The statistical errors you have fallen into, no doubt unconsciously, must be left for correction to one or more of the parties affected by them. Evidently the main facts have been imperfectly brought to your notice; hence the injustice of your comments in the article above referred to, professedly founded on the Report, but actually and mainly arguing on representations nowhere to be found in it.

I am, &c.,

HENRY SAVAGE,

Member of the Managing Committee.

14, Bentinck-street, June.

[The only remark we will make with regard to this letter is this: The article in question was inspired simply and solely by the Report of the Samaritan Hospital.—ED. *Med. Times and Gaz.*]

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 16.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

DR. B. FENWICK'S CASE OF PRIMARY CANCER OF LUNG.

DR. COUPLAND read the report of the Morbid Growths Committee, to whom this specimen was referred. The reporters regarded the growth as a lympho-sarcoma, and were of opinion that it had commenced in the bronchial glands and thence spread to the lungs. Dr. Fenwick's view of primary cancer was thus negatived.

MR. STARTIN'S CASE OF XANTHOMA.

DR. CROCKER read the report of the Morbid Growths Committee, to whom this and some similar specimens had been referred. The reporters agreed as to the accuracy of the diagnosis. The interesting points were the early age at which it occurred, and the fact of several members of the same family being affected.

STOMACH SHOWING HÆMORRHAGES IN CIRRHOSIS OF LIVER.

DR. NORMAN MOORE said that the stomach showed numerous hæmorrhages into the mucous membrane. Some of these were covered with epithelium, but in some the clot was quite uncovered. The stomach contained half a pint of altered blood, and there was much more in the intestines. The patient was a man aged forty-eight, who died in St. Bartholomew's Hospital of cirrhosis of the liver. The liver was examined microscopically, and found to contain an extraordinary increase of connective tissue. In most parts the fibrous capsule of the lobules was four times as thick as all the other elements of the lobule taken together. The spleen weighed nineteen ounces. This was probably the variety of cirrhosis in which hæmatemesis was most frequent.

OXALIC ACID POISONING.

DR. NORMAN MOORE also exhibited the stomach of a servant-maid, aged twenty-four, who had taken several ounces of oxalic acid, and had died in about four hours. The skin about the mouth was natural; the tongue was whitish. The epiglottis was grey, the fauces and pharynx of a pink and grey tint. The lower part of the œsophagus was grey, and the mucous membrane was detached in parts and everywhere wrinkled. The stomach was distended with dark blood. On washing out the blood, no abrasion was obvious. The mucous membrane generally was of a brownish colour, with darker lines along the course of the vessels. The mucous membrane of the duodenum and jejunum was of a greyish tint, but was not wrinkled. Below the jejunum, the mucous membrane of the intestines was not altered, but was covered by an abnormal quantity of mucus. The large intestine contained a quantity of solid fæces. There was no peritonitis. The larynx and trachea were natural. The case was exceptional in the length of time between the taking of the poison and death, and in the large gastric hæmorrhage.

STOMACH FROM A CASE OF POISONING BY CYANIDE OF POTASSIUM.

DR. NORMAN MOORE said that the specimen was obtained from the body of a man aged about twenty-eight, who was found dead in his bed in a hotel. He had swallowed about half a tumbler of a saturated solution of cyanide of potassium. He had not vomited, and lay as if asleep. The stomach and œsophagus, when fresh, were of a peculiar reddish-brown, and were very much wrinkled, but there was no hæmorrhage, and the mucous membrane was nowhere detached. The intestines were quite natural. All the cavities of the heart contained imperfectly clotted blood, and the lungs were engorged. The brain was quite natural.

ULCERATION OF EPIGLOTTIS FROM A CASE OF TYPHOID FEVER.

This specimen also was shown by Dr. NORMAN MOORE, who pointed out that the ulceration was at the upper edge, and was associated with a small local necrosis. The larynx

was normal. The specimen was from a man aged twenty-six, who died of perforation in about the fourth week of typhoid fever.

In answer to the President, Dr. MOORE said this complication was more common in Germany than in England.

Dr. SOUTHEY could substantiate the last observation from personal knowledge. He believed the reason to be that less alcohol was given in Germany than in this country; he was moreover of opinion that laryngeal complications were beginning to be more common in this country now that stimulation was going out of fashion.

CHONDRO-SARCOMA OF THE BREAST.

Mr. BOWLBY showed an example of this disease, which had been removed from a woman aged forty, at St. Bartholomew's Hospital. The peripheral portions of the tumour were soft, while the central portions were hard and cartilaginous. The tumour recurred after removal, and the woman died early. He quoted other cases from Billroth.

RENAL CALCULUS UNDERGOING DISINTEGRATION.

Dr. RALFE showed a specimen of renal calculus which had been passed in a state of disintegration, after it had been lodged in the right kidney for upwards of three years, and which latterly had given rise to so much pain and constitutional disturbance that the question of nephrotomy was entertained. The calculus, which showed signs of erosion on the surface, was reduced to a mere shell. The patient at first had been placed on alkaline treatment, with a view of dissolving the stone; subsequently, recourse was had to Dr. John Murray's (of Newcastle) plan of giving the patient considerable quantities (five or six pints daily) of soft water—i.e., filtered rain-water. Occasional doses of turpentine and opium were also employed, for the relief of attacks of colic and hæmaturia. After some months, pieces of grit and scales began to pass with the urine; and finally, at the end of two years, the shell of the calculus was expelled. Dr. Ralfe thought that sufficient attention had not been paid to Dr. John Murray's suggestion, for the employment of soft water to effect the disintegration of calculous deposits in the kidney, or indeed to the whole question of their solution by chemical agencies.

CONCLUSION OF A CASE OF FILARIAL HÆMATO-CHYLURIA.

Dr. STEPHEN MACKENZIE reported the conclusion of the case exhibited to the Society on October 18, 1881. The particulars of the case were recorded in our last volume, page 668. At that time it was calculated that there were nightly from 36,000,000 to 40,000,000 of embryo filariæ in his blood. On October 20, 1881, he went out in wind and rain without an overcoat; and on the following morning he had a severe rigor, followed by vomiting, and pain in the head, epigastrium, and right hypochondrium. For the next few days his temperature remained high, coughing produced pain in the right side, and there was some pain and swelling about the left shoulder. On October 22 the number of filariæ in the blood had very much diminished, and after that date none were ever discovered in the blood or urine; the latter fluid ceased to be chylous, but the quantity of blood and albumen in it increased. Double pleurisy came on, and the swelling about the left shoulder resulted in an abscess in the vicinity of the sterno-clavicular articulation. This abscess was opened. Another abscess subsequently formed in front of the left shoulder, and was opened. In neither case did the pus contain any trace of filariæ. The pyrexia persisted, and the physical signs of empyema (on the right side) appeared on December 9. After a temporary improvement, cystitis set in, and the patient became progressively weaker, and died on January 10, 1882, a little less than three months after the initial rigor. At the necropsy there was found empyema on the right side, pleurisy on the left, acute cystitis and suppurative nephritis in an early stage, and wedge-shaped patches of yellowish-grey appearance in the cortices of the kidneys. The abdominal lymphatics (which were dissected by Mr. E. H. Fenwick) were found to be enormously dilated; the thoracic duct was dilated up to a point three or four inches above the aortic opening of the diaphragm; at that point it became impervious, and was lost in a mass of inflammatory material; about four inches above this point it could be again traced, and was still impervious, but at its termination it was pervious. The iliac, lumbar, and renal lymphatics (but especially the left

iliac and left renal) were greatly enlarged. Scattered about the left renal lymphatics, and occupying the lymph sinuses, were numerous lymphatic calculi; no filariæ were discovered in them. The various organs of the body were examined microscopically, but no filariæ were encountered. During the life of the patient, Dr. Mackenzie formed the opinion that, in the initial rigor or shortly afterwards, the parent filariæ which had been lodged in the receptaculum chyli and contiguous lymphatic trunks had become dislodged; that one or more reached the thoracic duct near its termination; and there excited inflammatory action, which resulted in the abscess described above; and that the double pleurisy was an extension from the inflammation of the thoracic duct. He thought that the enormous dilatation of the abdominal lymphatics found after death made it probable that the parent worms had lodged there, and on the whole confirmed the diagnosis. No trace of the parent or embryo filariæ had been met with, but all the clots had not yet been examined; it ought, however, to be remembered that three months elapsed between the final disappearance of the filariæ from the blood and the necropsy, and that the parent worms probably perished in the inflammation they excited. As to the mode in which the chyle had reached the urinary tract during life, the evidence was inconclusive; but Dr. Mackenzie thought that the dilated and varicose condition of the renal lymphatics (especially of those on the left side) favoured the theory that the communication had been established at this point, either between the blood vascular and lymphatic systems at their entrance into the kidney, or by some rupture of the lymphatics of the kidney itself. He thought that the hæmaturia, the severe lumbar pain early in the case, the great dilatation of the renal lymphatics, and the presence of calculi in the renal lymphatics on the left side, combined to make it probable that the communication between the lymphatic and urinary systems occurred in the kidney and not in the bladder. But few necropsies on these cases had ever been made, and in none had the channel of communication been absolutely demonstrated. Microscopic examination of the kidney and bladder had thrown no light on the subject in this case, where, however, the chyluria had ceased for three months. In China, many persons whose blood was infected with embryo filariæ remained in good health; but this case showed that such persons had a precarious existence, and that serious illness or death might result from what must be called an accident of the disease.

Mr. J. HUTCHINSON, jun., had quite recently examined a coat in the Zoological Gardens, and found the worm in the right auricle.

CONGENITAL ABSENCE OF RADIUS.

Mr. SHATTOCK exhibited dissected specimens from a fœtus, showing this deformity. In one arm the bones were exposed, and in the other the muscles and nerves had been carefully dissected out. In neither of the limbs was there any biceps muscle, and no trace of a radius. The feet of this fœtus presented talipes equino-varus.

CONGENITAL ABSENCE OF RADIUS AND OF TIBIA.

Mr. R. W. PARKER exhibited two living specimens. 1. A boy, aged eleven, in whom the radius was absent from each forearm. The ulna was shorter than normal. The carpus also appeared to be deficient. On the right hand there were four fingers and four metacarpal bones; on the left only three fingers and metacarpals. It was impossible to say whether the biceps muscles were absent; if present they were ill developed, as was also the left deltoid, probably from disuse. 2. A child, aged two years, with a similar deformity of the upper extremities, except that there were supernumerary fingers rather than a deficiency. There was, however, in addition, a total absence of each tibia. The fibula was shorter than normal. The feet were adducted; with the exception of having six toes, they appeared normal.

PSAMMOMA OF SPINAL MEMBRANES.

Mr. HUTCHINSON, jun., showed this specimen. It was removed from a woman. It was situated at the upper part of the cord, was attached to the dura mater, and pressed up the cord, leading to atrophy of the nerve-substance. Sections showed the concentric arrangement of the cell elements, resembling endotheliomata which had undergone calcification, an occurrence also known to take place in the epitheliomatous form of tumours.

MINUTE ANEURISMS IN CEREBRAL HÆMORRHAGE.

Dr. TURNER showed specimens and drawings illustrative of this condition. There was considerable periarteritis and atheroma of the arterioles. He thought the miliary aneurisms were unconnected with the atheroma. The condition of the arterioles was a general one, and affected other parts than the brain.

(?) SIMPLE STRICTURE OF PYLORUS.

Dr. TYSON, of Folkestone, showed this specimen, which he believed to be congenital. There was a fibroid tumour of the uterus.

On the suggestion of Dr. MOORE, the specimen was referred to the Morbid Growths Committee.

CARCINOMA OF THE KIDNEY.

Dr. SHARKEY showed a series of microscopic specimens, illustrating the development of cancer from the epithelium of the Malpighian bodies, which appeared to be secondary to cancer of the ovary.

CARD SPECIMENS.

Mr. SHATTOCK—1. Filariæ (parent worms) in the Right Heart of a Dog; 2. Tubercle in the Tibia of a Pigeon.

Dr. MORISON—Inflammation of Tricuspid and Mitral Valves.

This meeting brought the work of the present session to a close.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, MAY 19.

Dr. TRIPE, President, in the Chair.

THE minutes of the previous meeting having been read and confirmed, the report of the Council was presented, on the alleged necessity of altering the mortality tables. This discussion was postponed. The annual meeting was arranged for Friday, July 7.

Dr. ARMITSTEAD read a paper "On the Administration of the Public Health Acts in Rural Districts," of which the following is an abstract:—The Royal Sanitary Commission of 1869 recommended that "in order that medical officers of health may be able to discharge their duties without fear of personal loss, they should not be removable from office by any local authority, except with the sanction of the central authority." This recommendation was not adopted. Several of the combined districts have now been broken up, and the officers appointed have either had to return to private practice, or accept a greatly reduced salary. There are in all about 553 rural sanitary districts, and of these 147, or about one-fourth only, are combined; 269, or nearly one-half, have appointed a resident practitioner as medical officer of health; and the remaining 137 have appointed 383 Poor-law medical officers as medical officers of health in their respective districts—an average of three officers for each rural sanitary district. In the combined districts the inspectors of nuisances perform their duties under the guidance of the medical officer of health; but in the other districts the inspector of nuisances performs his duties without consulting the medical officers of health. Medical officers of health can seldom perform their duties satisfactorily unless they are compelled to devote the whole of their time to the performance of the duties. When a proper appointment of the medical officer of health or inspector of nuisances has been made, it should not be unmade without the full sanction of the Local Government Board. A large proportion of the population in rural districts is habitually drinking polluted water. Overcrowding is still a great cause of physical as well as of moral evils. The improvement of cottage accommodation in rural districts has never yet been fairly undertaken, and it is doubtful whether sanitary authorities without State aid can do more than temporise with the matter. There are in almost every rural district hundreds of dirty, damp, badly constructed cottages, which should be totally demolished and replaced by new cottages. The Public Health (Water) Act of 1878 was passed in order to throw the entire cost of providing a sufficient supply of water on the owners of the houses requiring the supply; but I am sorry to say that experience has proved that the Act is in this respect a failure. In his own district

alone in the eight years, 1874 to 1880, more than 7000 filth nuisances have been abated—an average of about 200 per annum for each rural district. What, then, has been the effect of the abatement of common filth nuisances on fever since the passing of the Public Health Act, 1872, and on enteric or typhoid fever in particular? During the decennial period from 1851 to 1860, 17,246 persons died each year from fever; and in the next decennial period, 1861 to 1870, the number of deaths were 18,928 per annum; but during the last ten years, 1871 to 1880, the average number of deaths per annum has been 11,751—a saving of more than 7000 lives a year. The death-rate from fever, 1851 to 1860, was 9.1; and 1861 to 1870, 8.8; but this has been reduced to an average, 1871 to 1880, of 4.9, and the last two years only 3.2 per 10,000 persons living. The average proportional number of deaths from "fever" during the first and second decennial periods, 1851 to 1860, and 1861 to 1870, was more than 40 deaths from fever to every 1000 deaths from all causes, whilst from 1871 to 1880 the proportional number was only 23 deaths from fever to each 1000 deaths from all causes. The deaths, which prior to the passing of the Public Health Act in 1872 were about 9000 per annum, have since the passing of the Act been reduced year by year, until in 1879 the number of deaths was 5860. Improved cottages for the labouring poor and the abatement of overcrowding would do much to prevent some of the 50,000 deaths which occur every year from consumption. Under the new Education Code, sanitary authorities will have power to close schools during an epidemic of infectious disease. Dr. Simon has estimated that the annual number of deaths from preventable diseases of all kinds brings the total to fully 125,000 more than it would be if existing knowledge of the chief causes of disease, as affecting masses of population, were reasonably well applied throughout England. There should be no admixture of private practice with public duties, and therefore Poor-law medical officers should not be appointed chief medical officers of health. They should, however, be required to report the diseases prevalent in their respective districts, and their causes. Districts should be combined with a view to the engaging and remunerating of a class of officers entirely special, and without the distractions and difficulties which ordinary practice would necessarily entail.

In the debate which followed the reading of the paper,

Dr. PARSONS, remarking upon the confusion of areas in sanitary districts, said that often a market town exists close to the boundary of a county, and part of the town may be thus officially isolated from the remainder for sanitary administration.

Dr. CHILD considered that a Poor-law medical officer will sometimes be a most efficient officer of health, by reason of being more quickly informed of the existence of disease in a locality.

The PRESIDENT attributed the large mortality from whooping-cough to carelessness and the imperfect attempts at isolation. Parents are allowed to expose their children in the public conveyances and thoroughfares, without being interfered with.

Dr. ARMITSTEAD, in his reply, said that the Local Government Board, and not the local authorities, had caused the breaking-up of many combined districts.

THE REFORM IN THE FRENCH ARMY MEDICAL SERVICE.—The *Gaz. Hebdom.* (June 2), which has so long fought the battle of army medical reform in France, expresses itself as entirely satisfied with the steps which General Billot has taken for carrying out the new law voted by the Chambers in March. The decrees just issued, it says, will give complete autonomy to the Medical Department under an inspector-general, and relieve it from its humiliating subjection to the Intendance. We hope that our contemporary is not too sanguine, and that this Act will not be allowed (like so many of its predecessors—e.g., the Compulsory Vaccination and Revaccination Act) to remain a dead letter.

THE eleventh annual Congress of the Associated Surgeons of Germany was opened last week in the Aula of the University, Berlin. The assembly bore in many respects an international rather than a strictly German character. Papers were read on new methods and recent discoveries in surgical science.

OBITUARY.

SIR JOHN ROSE CORMACK, M.D. EDIN. AND PARIS,
F.R.C.P. LOND., F.R.S.E., PHYSICIAN TO THE HERTFORD
BRITISH HOSPITAL, PARIS.

SIR JOHN ROSE CORMACK, whose death, at his residence in the Rue St. Honoré, Paris, on May 13, we have already, with much regret, briefly recorded, was born in March, 1815, at Stow, in Midlothian, of which place his father, the Rev. John Cormack, D.D., was minister. After receiving, as is happily usual in Scotland, a sound general education, John Rose Cormack became a medical student of the University of Edinburgh, and graduated there as M.D. in 1837, being awarded a gold medal for his graduation dissertation on the Presence of Air in the Organs of Circulation. In the same year (1837) he was, we believe, the Senior President of the Edinburgh Royal Medical Society, and presided over the centenary festival of the Society.

After taking his degree, Dr. Rose Cormack went to Paris, where he attended the lectures of Andral and Velpeau; and he then travelled for some time in Italy and Spain. On his return home he settled as a physician in Edinburgh; in 1841 became a Fellow of the Edinburgh Royal College of Physicians, and by-and-by was appointed one of the Physicians to the Royal Infirmary. He was also a Lecturer on Medical Jurisprudence in the Extra-Mural School. In 1843, during the epidemic of relapsing fever in Edinburgh, he was Physician to the Fever Hospital, and during his service there he made a large number of very careful clinical and pathological observations, which he published, the same year, in the shape of a treatise, entitled, "Natural History, Pathology, and Treatment of the Epidemic Fever at present prevailing in Edinburgh and other Towns: illustrated by Cases and Dissections." He also published some Additional Remarks on the same subject, in the pages of the *Medical Gazette* (London) in 1849. Two years before this last-named date Dr. Cormack had left Edinburgh and settled at Putney, where, for some years, he pursued general practice. Afterwards he moved to London, and resided there till 1866, when he left England and went to Orleans. In 1869 Dr. Cormack moved to Paris, the death of Sir Joseph Oliffe having made a special opening for an English practitioner in that city. In 1870 he obtained the degree of Doctor of Medicine of the Faculty of Paris, and the subject of his graduation thesis on the occasion was "De l'Entrée de l'Air dans les Orifices Béantes des Veines Utérines considéré comme Cause de Danger et de Mort subite peu de Temps après la Délivrance." Dr. Cormack had previously written upon the subject in the *London Journal of Medicine* in 1850, and it will be remembered that his graduation thesis at Edinburgh was on a cognate subject. Dr. Cormack was an able and industrious writer, and contributed to various medical journals many notable papers, besides those we have already mentioned. In 1844 papers were published by him in the *Edinburgh Monthly Journal of Medical Science* on "The Value of the Dark Abdominal Line as a Sign of Recent Delivery," and on "Intra-Uterine Cystic Disease of the Kidney." In 1849, articles from his pen appeared in the *London Journal of Medicine* on "Scarlatinous Nephritis," on "Puerperal Convulsions: their Frequent Dependence on Toxæmia," on "Relations and Differences between Epilepsy and Puerperal Convulsions," and on other subjects. These, and other papers, together with more recent studies of disease, especially on "Diphtheria," and on "Infantile Glotto-Laryngeal Spasm," Dr. Cormack gathered together in two volumes of "Clinical Studies, illustrated by Cases observed in Hospital and Private Practice," which were brought out by Messrs. Churchill in 1876. All this formed, however, but a small part of his literary labours. He translated and edited all but the first of the five volumes of the New Sydenham Society's translation of Trousseau's "Lectures on Clinical Medicine." In 1841 he established the *Edinburgh Monthly Journal of Medical Science*, which was long, and even after he had left Edinburgh, generally spoken of as "Cormack's journal." It was remarkably well edited, and had a special reputation for its careful and valuable articles on all matters relating to forensic medicine. The journal was afterwards united with the *Edinburgh Medical Journal*, on the title-page of which its name still appears. While practising in Putney, Dr. Cormack established, in or about the year 1849, the *London Medical Journal*, also a monthly

periodical, in the management of which he had the assistance, as contributors, of many of the best known of the metropolitan physicians and surgeons of the day. This journal had not, however, a long life, for Dr. Cormack discontinued it in the latter part of the year 1852, when he accepted the appointment of Editor of the *Journal of the Provincial Medical and Surgical*—now the *British Medical Association*. The by no means light or easy duties of this post he discharged faithfully and with marked success till his resignation of the appointment in 1855.

Very soon after Dr. Cormack took up his abode in Paris he had ample opportunities of showing how he could suffer and endure with, as well as aid, his newly chosen fellow-citizens. He remained, with some of his family, in Paris throughout the siege by the German forces, and rendered most active and able service to the wounded in the ambulances and on the field, and as a member of the committee for relieving distressed British residents. He was equally active and earnest in aiding and caring for the wounded during the second siege and the terrible time of the Commune. In 1871 the French Government made him a Chevalier of the Legion of Honour, and the French Minister of Foreign Affairs, when informing him that he had been decorated, stated that it was a token of the gratitude of France for the devotion with which he had attended the wounded and dying, whom he had sought on the field of battle, and faithfully attended in the British Ambulances. In 1872 Her Majesty the Queen conferred upon him the honour of knighthood in recognition of his skill and devotion in aiding the wounded and distressed. Sir John Rose Cormack was a most careful and industrious clinical observer, and a very attentive and trustworthy practitioner; an earnest, learned, and untiring worker; and a man of high honour and sterling integrity. When the Hertford British Hospital was established he was appointed one of the Physicians to it, and still held the office at the time of his death. In Paris he was held in high esteem by the English residents and by his professional colleagues, English and French.

JOHN BROWN, M.D., F.R.S.E., LL.D. EDIN.

(From a Correspondent.)

"JUST go upstairs, D—; I'm busy taking a man's life here; it'll be all over in a few minutes." Such, in an amusing undertone of assumed seriousness, just sufficiently loud that the victim might overhear, and sufficiently *sotto voce* that he might suppose he was not intended to overhear, was the quaint and highly characteristic salutation with which the gifted and genial author of "Rab and his Friends" welcomed the writer of these lines on the last occasion when he stood in the hall of 23, Rutland-street, Edinburgh. At the same time, with a confidential freemasonry of expression, which the initiated understood at a glance, the information was conveyed by him that the sanguinary deed in which he represented himself as being engaged at the moment was a "post-mortem" examination performed during life upon some one who proposed to participate in the benefits of the "Widows' Fund," or other equally reliable Scottish life-insurance society. We question if any gentler pathologist of living conditions ever wielded instruments of percussion and auscultation, and we can fancy the numberless little ruses and subterfuges to which his woman's heart would occasionally drive him, rather than convey to a proposer for life-insurance the conviction—which for some men has made life a hideous nightmare—that his life was held by a very insecure tenure.

Born at Biggar, a country town in the South of Scotland, in September, 1810, John Brown was the eldest son of the Rev. John Brown, minister of the United Presbyterian church there, and afterwards the well-known pastor of Broughton-place congregation in Edinburgh. A son of the manse, he was himself endowed with much of that religiousness of spirit which he ascribes to his father in the well-known biographical letter to Dr. Cairns; and he inherited not a little of his father's exegetical power, as witness his analysis of that passage from "Much Ado about Nothing," which he has prefixed to his "Essay on Arthur Henry Hallam." Not much is known of his early days, but a glimpse may be had into his character as a boy from his own story as to

how he and Bob Ainslie first made the acquaintance of Rab, when the game-chicken's fondness for fighting brought him to an untimely end. No fighter himself—his gentle nature, his more delicate physique forbade,—he could yet admire the virtue and the prowess of valour wherever they showed themselves; and doubtless the many trials of strength which he witnessed in his early years gave colour and firmness to that tenacity—*tenax propositi*—of his own views and peculiar individualism which charmed and delighted all who came in contact with him in after-life. Refined and gentle, his, however, was no namby-pamby character. He could stick to his text with a grip which would have satisfied his own beloved Rab; and those of us who remember the various occasions on which, in the columns of the *Scotsman*, he threw down the gauntlet and held his own against all opponents, will long hold in loving memory him who bore the *nom de plume* of "Randolph."

Trained and educated, both in the general and professional senses, in Edinburgh, he took the degree of M.D. in the University there in the year 1833. In Edinburgh, too, with the exception of a year's absence at Chatham, where he acted as assistant to a surgeon, Dr. John Brown passed the remainder of his life. In 1840 he married Miss Catherine Scott, daughter of John Scott, of the *London Magazine*, and to her we owe it that, with "wifelike government," he was induced to write those "Notes on Art" which constitute his title to be considered the Ruskin of the North. Nothing could be more charming than the manner in which all this came about. The Cromarty stonemason recognised in the Edinburgh doctor that power and perception and insight into matters of art which, had John Brown been able to concentrate and focus, as it were, upon it, would have enabled him to rival even the great art-critic to whom we have likened him. But the *sine quâ non* had to be provided—the wherewithal of housekeeping—the "Parvula" had to be clothed and fed and schooled, the profession had to be cultivated, and John Brown's power had to be diffused. His work, however, to some extent fragmentary though it be, the world will not willingly let die; and although his patients will look back upon him as in the highest sense their "human healer," his memory will be enshrined in those masterpieces of literary meteorism which have made his name a household word. Possessing a modest but good practice in Edinburgh, he had no loud noisy ambition. Satisfied with comfort, welcomed and beloved by his patients, Dr. Brown's was not an eventful career. Admiring, almost canonising, his great preceptor, he was much in his society; and for fearless honesty of purpose, absolute and sincere truthfulness, no one was ever more worthy of hero-worship than his and our beloved Syme.

Time rolled on, and he gradually gave to the world those papers to which we have already referred, and which he afterwards published together under the title of "*Horæ Subsecivæ*," the undercut, as it were, ripe and rare, and rich, and tender, and delicate, of his whole being—the outcome of all that was best within him. His writings have a flavour all their own, a style and an individualism as distinct as that of a Turner or a Landseer. The *ego* of John Brown is in them all, an *ego*, however, which never palls and is never "egotistical." "Rab and his Friends," with its power and its pathos, its humour and its sadness, will live as long as the world lasts.

"Pet Margorie," too, with its glimpse of the great magician, with its tale of a young life so full of promise and too soon cut off, the humour and the sprite-like gambolling of mystification; and those essays where he touched to the life and to the quick those whom he loved, and who from his delicate appreciation of them came to love him. The friend of all the best of his compeers in Edinburgh, his literary position made him the friend and correspondent of Gladstone, of Ruskin, Thackeray, and Leech, of Wendell Holmes and Hawthorne.

In 1874 the University of Edinburgh honoured him and honoured herself by conferring on him the degree of LL.D. A Fellow of the Royal College of Physicians and of the Royal Society of Edinburgh, he was twice appointed by Mr. Gladstone Rector's Assessor in the Court of the University, and the then Government made him a member of the Education Commission; while in 1876 a pension of £100 a year in recognition of his literary work was accorded him. Never, however, was man possessed of a higher humility than Dr. John Brown; and if it is easier for a camel to go

through the eye of a needle than for a rich man to enter the kingdom of heaven, John Brown's title of admission to the regions of bliss will not be blurred by the disqualification referred to in that saying of his Christian Master. Unworldly in the highest and best sense, a brilliant, refined, and gifted man, it will be long before his friends forget that beautiful and *spirituel* face. We have seen "Christopher North" with the majesty of a lion stalking along our streets, and it was a sight never to be forgotten; but we have also seen John Brown with gentler air, but equally remarkable form, and one does not live in vain to have seen and known the author of "*Noctes Ambrosianæ*" and "*Horæ Subsecivæ*."

The present is neither the place nor the time, nor is a medical practitioner, unused to the pen, the man to criticise or form a true estimate of John Brown's position in the literary firmament. For what he has given us of refined and delicate enjoyment we may well be thankful, and what he has produced must be taken as an index of the potentialities which were within him. His works are wells of pure thought and of vigorous English; and had health and strength and leisure permitted, had he been able to concentrate his power in one direction, he would have taken high rank in the walks of literature. As it is, the toils and anxieties of a medical practice are not the best preparation for sustained effort. We have it on record from himself that he wrote with "awful sufferings and difficulty, and much destruction of sleep," and we know that there were times when the nervous tension of which these were the outward and visible signs deepened into despondency and gloom.

The thread, however, of his own beautiful nature has broken at last. Fortunately, a bright and happy winter, a glimpse of sunshine amid darkness, has preceded the end. A few weeks "ailing," out of sorts, pulmonary conditions never very robust, the sudden rousing into action of perhaps old-standing mischief, increasing weakness, prostration, then the end, and Death his Friend, our Enemy, took from us on the morning of May 11 one of the rarest and gentlest and most refined spirits that ever adorned the society of Modern Athens.

MEDICAL WOMEN IN AMERICA.—The *Louisville Med. News* (May 20), commenting upon the refusal of the Medical Faculty of Harvard University to sanction the education of women at that institution, believing that it would prove detrimental to it as a school for men, for which it was endowed, observes:—"History has furnished some brilliant examples of medical women to show their capabilities as teachers and practitioners. The professional career of their modern representatives in many American towns is evidence that the popular prejudice against them can be conquered. After all that has been said in its favour, it cannot be considered a career to which a father would gladly devote his daughter. No one woman has done the cause greater service by her life than Dr. Mary Putnam Jacobi (the wife of Dr. Jacobi of New York), and yet she has given great discouragement to her medical sisters by her clear and forcible statement of the character and drawbacks of the work they have before them. In her article in the *North American Review* she says many wise things for women to ponder. From among them we select the following:—'The profession of medicine must be chosen deliberately, and not at haphazard; from a strong and genuine taste, and not from the mere pressure of economic necessity. It must be seriously prepared for in youth; must be entered upon at the age at which many men marry; may not yield its best returns till full maturity is reached; must be adopted, therefore, if at all, for a life-time. Hence is required either an accidental celibacy or a deliberate renunciation of marriage for the sake of medicine, such as is not dreamed of for any other work; or else such an adjustment of domestic claims as shall render them and the practice of medicine by married women mutually compatible.' It will be seen that the woman's lot in medicine, as in most active pursuits, is harder than the man's. Renunciation of much that makes up a full life for a woman is a risk she will have to run. It remains to be seen whether the judgment of the experienced and the thoughtful of her own sex can damp the ardour that has burned quite steadily upon this continent for a score of years."

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College having passed the necessary examinations for the Fellowship at the half-yearly meetings on the 25th, 26th, and 27th ult., were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and at a meeting of the Council on the 8th inst. were admitted Fellows of the College, viz. (taking them in seniority of Membership):—

Taylor, James, L.R.C.P. Lond., Chester.
Hopkins, John, L.S.A., Cleveland-street.
Lane, William Arbuthnot, M.B. Lond., Chelsea.
Silcock, Arthur Quarry, M.D. Lond., Dalston.
Bennett, Wm. Charles Storer, L.R.C.P. Lond., L.D.S., George-street, Hanover-square.
Jackson, Arthur, L.S.A., Grays, Essex.
Poland, John, L.R.C.P. Lond., Blackheath.
Davies, Morgan, L.R.C.P. Lond., Llangwryfoin, Cardiganshire.
Dale, Frederic, B.A. and M.B. Cant., L.R.C.P. Lond., Scarborough.
Ballance, Charles Alfred, M.B. Lond., Lower Clapton.
Bond, Charles John, L.R.C.P. Lond., Lutterworth, Leicestershire.

Two other gentlemen passed the examinations, who cannot receive their diploma, until, in the case of one of them, he attains the age of twenty-five, and till the other passes an additional examination in obstetrics. Four candidates only have failed to acquit themselves to the satisfaction of the Court of Examiners, and were referred to their professional studies for twelve months. At the corresponding period last year there were twenty-seven candidates, of whom ten were rejected. Mr. Mark Purcell Mayo Collier, of Turnham Green, who passed the examination in May, 1881, having now attained the legal age of twenty-five years, was also admitted a Fellow. The next half-yearly examination for the Fellowship of the College will take place, as usual, in November.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on June 1:—

Atkins, Ernest, Burrage-road, Plumstead.
Beverley, John Metcalfe, Bury, Lancashire.
Collier, Joseph, Manchester.
Cree, Herbert Eustace, St. John's-park, Highgate Hill.
Crowther, George Dobson, Luddenden, Manchester.
Meharry, William John, Southill-road, Belfast.
Parakh, Nasarwanji N., Hereford-road, Bayswater.
Roberts, Henry, Shaftesbury.
Tate, Alan Edmondson, Trent, Somerset.
Williams, Montague William, Tunbridge Wells.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Bentliff, Philip Barnett, Middlesex Hospital.
Maddison, Thomas Sherwood, Middlesex Hospital.
Muddle, Edward John, Guy's Hospital.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Fleet-Surgeon John Fisher has been promoted to the rank of Deputy Inspector-General of Hospitals in Her Majesty's Fleet, with seniority of May 30, 1882.

BIRTHS.

DAWSON.—On May 30, at 5, Second-avenue, Brighton, the wife of Richard Dawson, M.B., of a daughter.
GASKELL.—On June 4, at Grantchester, near Cambridge, the wife of Walter H. Gaskell, M.D., of a daughter.
ROOME.—On May 16, at Elfieln Villa, Guildford, the wife of H. A. Roome, M.B., of a son.
STRUGNELL.—On June 7, at 45, Highgate-road, N.W., the wife of F. W. Strugnell, L.R.C.P., of a son.
THOROWGOOD.—On May 31, at 61, Welbeck-street, Cavendish-square, W., the wife of J. C. Thorowgood, M.D., F.R.C.P., of a daughter.
WALLACE.—On June 4, at 92, Cazenove-road, Upper Clapton, the wife of Frederick Wallace, L.R.C.P., of a daughter.

MARRIAGES.

BIDDLE—BALLARD.—On June 1, at Merthyr Tydfil, C. Biddle, L.R.C.P., to Mabel Mary, daughter of the late Benjamin Ballard, Esq.
BLAXLAND—BETTS.—On April 13, at Gladesville, N.S.W., Herbert Blaxland, L.R.C.P. Lond., M.R.C.S. Eng., Medical Superintendent of the Hospital for the Insane at Callan Park, to Edith Jane, third daughter of the late J. A. Betts, Esq., of Paramatta.
FERGUSON—MELLO.—On June 6, at Stokesley, Dr. William Balfour Fergusson, M.B., C.M., of Green Street, Kent, to Charlotte, daughter of the late Joshua Mello, Esq.
FORTY—HICKS.—On June 1, at Easingwold, J. F. Forty, M.R.C.S., to Anne, daughter of E. B. Hicks, M.R.C.S., of Easingwold.

LUSH—INGRAM.—On the 7th inst., at Weymouth, William George Vawdrey Lush, M.D., M.R.C.P., to Sarah, youngest daughter of the late Rev. Rowland Ingram, formerly vicar of Giggleswick, Yorkshire, and late rector of Little Ellingham, Norfolk. No cards.

PRETTY—FALK.—On June 1, at Whitegate, Cheshire, Herbert Pretty, son of W. G. Pretty, M.R.C.S., of Fressingfield, Suffolk, to Ada Charlotte, daughter of H. E. Falk, Esq., of Catsclough, Cheshire.

TEESDALE—MACKINTOSH—HATHAWAY.—On June 6, at Bath, the Rev. William Teesdale-Mackintosh, M.A., vicar of South Cave, Yorks, to Ethel Lawrence, daughter of Charles Hathaway, M.D., of Barnard House, Bath.

DEATHS.

CAMPBELL, GEORGE WILLIAM, M.D., of the city of Montreal, at 24, George-square, Edinburgh, on May 30.

CHRISTIE, MARGARET BISS BLAKE, wife of James Christie, M.D., at Gowanlea, Dundee, on June 1.

EADY.—The surviving twin son of G. J. Eady, M.R.C.P., at Roslin, Caterham Valley, on June 5, aged 15 days.

ELLIOT, HERBERT, son of S. N. Elliot, M.R.C.S., late of Dartmouth, South Devon, drowned off Morecambe Bay, on June 2, aged 21.

FRANCIS, JEANNETTE MARY, daughter of T. Francis, L.R.C.P., at Monkton House, Acton, on June 4.

GARSTANG, WALTER, M.D., at Lytham, on June 1, aged 66.

GREATREX, EDWARD, late Surgeon-Major Coldstream Guards, at Broadstairs, on June 1.

HALE, ROBERT JAMES, M.D., at Nocton, Wairoa, New Zealand, on April 3, in his 65th year.

HINES, CHARLES HENRY, M.R.C.S. Eng., at 6, The Oaks, Sunderland, on May 22, aged 40.

JOHNSTON, JOSEPH SALKELD, M.D., Surgeon-Major, retired, Army Medical Department, at Lynwood, Penrith, on May 30.

JONES, LEWIS HERBERT, L.R.C.P., M.R.C.S., at 34, Marylands-road Sutherland-gardens, on June 3.

LITTLE, CHAS. EDWARD, M.R.C.S., at Shenley, Herts, on June 1, aged 35.

NEWINGTON, HARRIETTE SOPHIA, daughter of Jesse H. Newington, M.R.C.S., at Tenterden, Kent, on May 31.

PEACOCK, THOMAS BEVILL, M.D., of 20, Finsbury-circus, on May 30, aged 69.

POLLARD, CECILIA LOUISA, daughter of Edward Wm. Pollard, M.R.C.S., of Brompton-square, S.W., on June 3.

SMITH, FREDERICK HODGKINSON, M.D., late Surgeon-Major H.M.'s Bombay Army, at Gravesend, on May 28.

SPENCE, JAMES, F.R.S., F.R.C.S.E., Surgeon-in-Ordinary to the Queen in Scotland, Professor of Surgery in the University of Edinburgh, at 21A, Ainslie-place, Edinburgh, on June 6. Friends will please accept of this the only intimation.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BOSTON UNION.—Medical Officer. (*For particulars see Advertisement.*)

CHILDREN'S HOSPITAL, BIRMINGHAM.—Resident Medical Officer and an Assistant Resident Medical Officer. Candidates must be registered members of the medical profession, in accordance with the Act 21 Vic., cap. 90, and their certificate of registration, with their testimonials, must be sent to the Secretary, Children's Hospital, Steelhouse-lane, Birmingham, not later than June 20.

EVELINA HOSPITAL FOR SICK CHILDREN, SOUTHWARK-BRIDGE-ROAD, S.E.—House-Surgeon. (*For particulars see Advertisement.*)

FLINTSHIRE DISPENSARY.—House-Surgeon. Candidates' names must appear upon the Medical Register as being possessed of medical and surgical qualifications; they must be acquainted with the Welsh language; and are prohibited from engaging in private practice. Applications, with testimonials of good moral character, etc., to be sent to the Hon. Sec., William Thos. Cole, on or before June 20. The election takes place on June 28.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY CARDIFF.—House-Surgeon. Candidates must be registered in medicine and surgery under the Medical Act. Further particulars may be obtained on application to the Secretary, George T. Colman, to whom testimonials, under cover, sealed, and addressed to the Committee, are to be sent on or before June 12.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, LONDON, N.—House-Surgeon. (*For particulars see Advertisement.*)

HALIFAX INFIRMARY.—Assistant House-Surgeon. Candidates must be doubly qualified and registered. Applications, with testimonials of ability and moral character, to be sent to the Senior Physician of the Medical Staff on or before June 20.

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET, LONDON, W.C.—Assistant-Physician. (*For particulars see Advertisement.*)

HULL GENERAL INFIRMARY.—Junior Assistant House-Surgeon. (*For particulars see Advertisement.*)

KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY.—Resident Medical Officer. Candidates must be doubly qualified. Applications, with testimonials, to be sent to the Hon. Sec., the Dispensary, 13, Kilburn-park-road, N.W. (from whom all particulars can be obtained), on or before June 15.

METROPOLITAN FREE HOSPITAL, 81, COMMERCIAL-STREET, SPITALFIELDS, E.—Assistant House-Surgeon. (*For particulars see Advertisement.*)

NATIONAL HOSPITAL FOR THE DEFORMED, 234, GREAT PORTLAND-STREET, REGENT'S-TARK, W.—Surgeon. (*For particulars see Advertisement.*)

ROYAL UNITED HOSPITAL, BATH.—Resident Medical Officer. (*For particulars see Advertisement.*)

YORK COUNTY HOSPITAL.—Honorary Physician. Candidates must be graduates in medicine of one of the universities recognised by the Medical Council of the United Kingdom, and Fellows or Members of the Royal College of Physicians of London, or Fellows of the Royal College of Physicians of Edinburgh; they must not practise or be connected in partnership with anyone who practises surgery, pharmacy, or midwifery. Applications, with diplomas and testimonials, to be sent to the Secretary, Robert Holtby, on or before June 24. Election on July 11.

UNION AND PAROCHIAL MEDICAL SERVICE.
** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATION.
Frome Union.—The Frome District is vacant by the death of Mr. Godfrey Knight Sprowle: area 9431; population 11,799; salary £144 per annum.

APPOINTMENTS.
Hendon Union.—Percy Pope, M.R.C.S. Eng., L.R.C.P. Edin., to the Pinner District.
Kendal.—Mr. James W. Montgomery, F.C.S., appointed Analyst for the Borough, in the room of Mr. Siehold, resigned.

CREMATION OF DISSECTED BODIES.—Upon the report Dr. Bourneville the Paris Municipal Council have again memorialised the authorities in order to obtain the cremation of the remains of bodies that have been used for dissection at the École Pratique and Clamart. According to Dr. Bourneville's report, the number of these bodies was 2730 in 1878, 3748 in 1879, and 3666 in 1880, that is to say, 10,144 bodies (what would the London anatomists give for a tithe of the number!) in three years. It is suggested that their cremation would form a first step in the adoption of a practice which it is very desirable to render optional.—*Revue de Thérapeutique*, June 1.

APPOINTMENTS FOR THE WEEK.
June 10. Saturday (this day).
Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.
ROYAL INSTITUTION, 3 p.m. Professor D. Masson, "On Poetry and its Literary Forms."

12. Monday.
Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. Hutchinson, "On Temperament, Idiosyncrasy, and Diathesis in Relation to Surgical Disease." Lecture II.

13. Tuesday.
Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
ANTHROPOLOGICAL INSTITUTE (4, St. Martin's-place, W.C.), 8½ p.m. Rev. S. Mateer, "On Nepotism in Travancore." Mr. G. W. Parker, "On the Laws of Madagascar." Mr. G. H. Kinahan, "On Cummer, Co. Wexford."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY (Ballot, Sp.m.), 8½ p.m. Dr. Sidney Ringer and Dr. H. Sainsbury, "Concerning the Action of Salts of Potash, Soda, and Ammonia on the Frog's Heart." Sir James Paget, "On Additional Cases of Osteitis Deformans." Mr. Davies-Colley, "On Cases of Malignant Pustule"; with Report on the Microscopical Examination of Sections from the Skin, by Dr. Charlewood Turner.

14. Wednesday.
Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Tatham.
ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. Hutchinson, "On Temperament, Idiosyncrasy, and Diathesis in Relation to Surgical Disease." Lecture III.

15. Thursday.
Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

16. Friday.
Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.
ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. Hutchinson, "On Temperament, Idiosyncrasy, and Diathesis in Relation to Surgical Disease." Lecture IV.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 3, 1882.

BIRTHS.

Births of Boys, 1109; Girls, 1067; Total, 2176.
Corrected weekly average in the 10 years 1872-81, 2559·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	704	600	1304
Weekly average of the ten years 1872-81, } corrected to increased population ...	765·5	710·9	1476·4
Deaths of people aged 80 and upwards ...	...	...	36

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

		Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	...	669633	..	5	1	3	17	..	3	1	5
North ...	...	905947	1	11	10	2	19	...	3	..	1
Central ...	...	282238	..	1	4	2	6	...	..	..	1
East ...	...	692738	..	7	12	1	24	...	4	..	3
South...	...	1265927	5	26	10	4	25	...	3	1	3
Total ...	..	3816483	6	50	37	12	91	..	13	2	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·990 in.
Mean temperature	58·5°
Highest point of thermometer	76·5°
Lowest point of thermometer	43·0°
Mean dew-point temperature	51·3°
General direction of wind	E.N.E. and N.E.
Whole amount of rain in the week	0·09 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 3, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending June 3.	Deaths Registered during the week ending June 3.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London	3893272	2176	1304	17·5	76·5	43·0	58·5	14·72	0·09	0·23
Brighton	109595	51	39	18·6	73·3	46·0	57·7	14·28	0·16	0·41
Portsmouth	129916	75	45	18·1	...	...	...	...	...	...
Norwich	83821	44	36	21·2	...	...	...	...	...	...
Plymouth	74449	48	36	25·2	70·1	49·0	56·5	13·61	0·39	0·99
Bristol	210134	124	86	21·4	66·0	40·4	54·3	12·39	0·50	1·27
Wolverhampton	76756	45	36	24·5	67·1	43·0	53·7	12·06	0·43	1·09
Birmingham	408532	268	150	19·2	...	...	...	...	...	...
Leicester	126275	89	44	18·2	70·2	41·5	54·8	12·67	0·55	1·40
Nottingham	193573	112	77	20·8	75·2	41·9	56·5	13·61	0·38	0·97
Derby	83587	56	39	24·3	...	...	...	...	...	...
Birkenhead	86532	65	24	14·5	...	...	...	...	...	...
Liverpool	560377	326	250	23·3	66·9	47·8	54·9	12·72	0·40	1·02
Bolton	106767	64	53	25·9	66·2	43·0	53·1	11·73	1·22	3·10
Manchester	340211	153	159	24·4	...	...	...	...	...	...
Salford	184004	94	92	26·1	...	...	...	...	...	...
Oldham	115572	76	69	31·2	...	...	...	...	...	...
Blackburn	106460	76	41	20·1	...	...	...	...	...	...
Preston	97656	62	47	25·1	...	...	...	...	...	...
Huddersfield	83418	43	31	19·4	...	...	...	...	...	...
Halifax	74713	36	32	22·3	...	...	...	...	...	...
Bradford	200158	79	87	22·7	...	...	...	...	...	...
Leeds	315998	213	134	22·1	68·0	44·0	55·0	12·78	0·11	0·28
Sheffield	290516	205	125	22·4	68·0	42·0	53·6	12·01	0·59	1·27
Hull	158814	117	71	23·3	...	...	...	...	...	...
Sunderland	119065	74	34	14·9	76·0	46·0	56·8	13·78	0·14	0·36
Newcastle	147626	102	70	24·7	...	...	...	...	...	...
Cardiff	86724	36	23	15·6	...	...	...	...	...	...
For 28 towns	8469571	4909	3237	19·9	78·2	40·4	55·5	13·06	0·41	1·04
Edinburgh	232440	178	103	23·1	66·8	44·5	55·4	13·00	0·08	0·20
Glasgow	514048	445	250	25·4	...	...	...	...	...	...
Dublin	348293	202	170	25·5	65·6	40·5	54·4	12·44	0·37	0·94

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·99 in. The highest reading was 30·16 in. on Thursday morning, and the lowest 29·53 in. on Saturday.

NOTES, QUERIES, AND REPLIES.

That questioneth much shall learn much.—Bacon.

Dr. Pearse, Plymouth.—The paper shall appear as soon as possible.

D. F. W. A., New Zealand.—Remittance received on March 15 for current year.

Ram Lal Ghose, Esq., Girihide, Bengal.—Letter and enclosure received.

A Metropolitan Teacher.—The subject was discussed at a meeting of the Council of the College this week.

A Benefactor.—Mr. William Richardson, of the firm of Messrs. Platt Brothers and Co., has offered to the Board of Governors of the Oldham Infirmary to place an additional ward on the north side of the Infirmary. The gift will be equal to about £3000, this being the cost of a similar erection on the south side, lately provided by Mr. Harry Clegg.

What Next?—The Teesdale Poor-law Guardians, at a recent meeting, discussed a resolution, submitting to Her Majesty "whether it would not have been more in harmony with the universal expression of grief if she could have deferred her drawing room levées until the bodies of Lord Frederick Cavendish and Mr. Burke had been interred." The resolution in an amended form was adopted.

St. Thomas's.—The late Dr. Peacock was a member of the Society of Friends, better known as Quakers.

A Reprimand.—The Town Council of Helston has received a severe reprimand from the Local Government Board as the result of the recent inquiry made by Dr. Ballard into the sanitary condition of the borough. The Town Council had entirely neglected their duties under the Public Health Act, 1875. The total absence of sewer provisions, etc., and the unregulated condition of the common lodging-houses, were especially adverted to by the central authority. It has now been resolved to call in an engineer to advise the Council as to the best means of improving the sanitary condition of the town.

Spanish Physicians in the Last Century.—It is recorded that the treatment prescribed by Spanish physicians of the eighteenth century was so violent that it was certain death to submit to it for any length of time. In the middle of that century Spain did not possess one practical chemist.

Sanitary Items.—The Town Council of Colchester have decided on converting a farmhouse, situate on the Estate of the Corporation at Myland, into an infectious diseases hospital. The Woolwich Board of Guardians have decided to erect an apparatus for introducing Clarke's water-softening process into the workhouse. A sanitary hospital is about to be built for the Torquay Local Board. The site—an acre of land on the Newton-road—has been given by Mr. William Kitson. The cost is estimated at £2600. A Local Government Board inquiry has been held at Pembroke with reference to an application from the Town Council for sanction to borrow £32,000 for providing a better water-supply for the town. The inspector expressed himself satisfied, from the evidence brought before him, that there was plenty of water to be obtained in the immediate neighbourhood of the town, without going twenty-four miles for it. The scheme consequently collapsed.

Sergius.—Lord Stanhope's Bill for prohibiting the payment of wages in public-houses has passed the House of Lords, and stands for second reading in the Commons, where Mr. Onslow has undertaken to move its rejection.

Their own Scavengers.—The St. Olave's (Southwark) District Board of Works has resolved to do the scavenging and watering of the district after Midsummer next by their own servants and plant, instead of employing contractors. A saving of about £1600 is expected to be effected by this alteration.

Life-Saving Apparatus.—The Bill brought into Parliament a short time ago, proposing to make provision of such apparatus compulsory at seaside resorts, dropped through.

An Undeniable Necessity.—At an inquest held by Dr. Danford Thomas at the Welsh Harp Hotel, Hendon, on the death, by drowning, of a woman aged thirty-six years, Mr. Warner, the proprietor of the hotel, whither the body of the deceased had been removed, addressed the coroner and the jury, and stated he thought it high time that the authorities of the large parish of Hendon should provide a mortuary for the reception of those persons found dead or expiring within the boundaries of the parish. The Coroner coincided with these remarks, and said that, with the exception of St. Pancras, the whole of the uptown parishes in his district had erected, or were erecting, mortuaries for the reception of the dead, the separation of which from the living was of great importance on the score of health, leaving out the question of decency. The jury expressed the opinion that such mortuaries should be provided in every parish of importance throughout the country.

X.—The object of the newly established Hospital Home at Exeter is to provide for the middle classes, who are not eligible for admission to ordinary hospitals, a home in which they can be properly nursed during serious illness.

Compulsory Vaccination, Switzerland.—The consideration of the "requisition," by the Federal Chamber, referred to in our last week's paper, is fixed, we believe, for the beginning of July.

Exhibitor.—The Hygienic Exhibition at the Alexandra Palace, Berlin, to be opened shortly, will include those articles which, being either *in transitu*, or still unpacked, escaped the fate of the Exhibition recently burnt down.

Scarlet Fever, Sittingbourne.—The Medical Officer of Health, at the last meeting of the Local Board, reported that the town was comparatively free from scarlet fever, but grappling with the disease had been rendered very difficult through the carelessness of the sick in mingling with the healthy.

Milk Prosecutions against a Coffee-house Company and a Restaurant Company.—The chief inspector at Birmingham summoned the Birmingham Coffee-house Company for selling milk containing 11½ per cent. of added water, and milk from which 35 per cent. of cream had been abstracted. It appeared from the evidence adduced that the Company retained the services of the borough analyst to test their milk from time to time, and that it was supplied to the inspector exactly in the same condition as it was received from the contractors. The summons was dismissed. At the same time the Birmingham Restaurant Company were fined 5s. and costs for selling milk from which 35 per cent. of cream had been abstracted. It was shown that the milk was purchased of the Birmingham Dairy Company, and was not tampered with afterwards. Birmingham has set an example by these prosecutions, which may induce other similar public companies to look after the value of the milk supplied to them by milk-dealers.

A Generous Donor.—It was announced at the annual meeting, held last week, of the Birmingham Nursing Institution, that a gift of £100 had been received from Miss Ryland, the munificent donor of two public parks and a sanatorium to the town.

Student.—"How is it, doctor, that I always take cold in my head?" Doctor: "It is a well-known principle, sir, that a cold is most likely to settle in the weakest part."

"A Nest of Abomination."—The attention of the Bethnal Green Vestry has been called to the odious condition of a disused cemetery at Peel-grove, which the Chairman of the Sanitary Committee described as a nest of abomination. It was the receptacle of all kinds of animal and vegetable refuse, and being partly unenclosed, the resort of disorderly and immoral people. It was in the close vicinity of a thickly populated neighbourhood, and of some well-attended schools. It appeared that steps were being taken to remedy the evils complained of, the Vestry Clerk reporting that he had, after some trouble, ascertained the name of the owner of the ground, and had required him to enclose it and abate the nuisance.

COMMUNICATIONS have been received from—

Mr. H. C. STEWART, London; Messrs. KINGSBURY and Co., London; THE DIRECTORS OF THE ART FURNISHING ALLIANCE, London; Dr. COMYNS LEACH, Sturminster Newton; Messrs. E. CHAPMAN and Co., London; THE REGISTRAR-GENERAL OF THE GENERAL MEDICAL COUNCIL, London; Mr. J. T. W. BACOT, Seaton, Devon; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; Dr. PEARSE, Plymouth; THE SECRETARY OF THE ROYAL COLLEGE OF SURGEONS, London; THE CHAIRMAN OF THE MARYLEBONE WORKHOUSE, London; Mr. STEPHEN, Chelsea; Dr. SONSINO, Cairo; Dr. SAVAGE, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; Dr. DOUGLAS POWELL, London; Dr. WILLOUGHBY, London; THE REGISTRAR-GENERAL, Scotland; Mr. WILLIAM MAYO, Leamington; THE SECRETARY OF THE ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, London.

BOOKS, ETC., RECEIVED—

Diagnose der Lungensyphilis am Lebenden durch gummöse Sputa bei Gleichzeitiger Hämoptyse, von Dr. J. Edmund Güntz, in Dresden.—Annual Report of the Leamington Provident Dispensary.—On Dermoid Cysts, by Frederick W. Elsner.—Annual Report of the Registrar-General of Births, etc., in England.—Proceedings of the New York National Association for the Protection of the Insane and the Prevention of Insanity.—Report on the Health, etc., of Kensington, from April 23 to May 20, 1882.—Report on the Health of Liverpool for 1881.—Materia Medica, by John C. Thorowgood, M.D., F.R.C.P.—Diseases of the Skin, by L. Duncan Bulkley, A.M., M.D.—Change of Life, by Edward John Tilt, M.D.—Surgery of the Rectum, by Henry Smith, F.R.C.S.—

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Le Concours Médical—Ciencias Medicas—Monthly Homœopathic Review—Archives de Neurologie—La Presse Médicale—Archives Générales de Médecine—Birmingham Medical Review—Ophthalmic Review—Medical Register—União Médica—Revue Mensuelle de Laryngologie et d'Otologie—Veterinarian—Night and Day—L'Impartialité—Therapeutic Gazette—Zeitschrift für Diagnostik und Therapie—Glasgow Medical Journal—Philadelphia Medical Times—Midland Medical Miscellany—Colchester Chronicle, June 3—La Independencia Médica—Gazzetta degli Ospitali—St. Louis Clinical Record—Practitioner—Medical News—Field Naturalist and Scientific Student—Western Medical Reporter—Louisville Medical News—Boston Journal of Chemistry—North Carolina Medical Journal—Analyst.

ORIGINAL LECTURES.

CLINICAL LECTURES

ON DISEASES OF THE ABDOMEN.

By FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P.,

Professor of Materia Medica and Therapeutics at University College;
Physician to University Hospital, and Professor of Clinical Medicine;
Physician to the Brompton Consumption Hospital, etc.

LECTURE XIII.

ABNORMAL PHYSICAL CONDITIONS.

HAVING discussed the methods of physical examination employed in relation to the abdomen and its organs, I propose now to give you an outline or general summary of the abnormal physical conditions which you may meet with in this region, and which are revealed by these methods. Before proceeding to this part of the subject, however, I would remind you that you must not forget the examination of the chest in connexion with abdominal affections. It must suffice to state that this examination has for its objects—first, the detection of diseases within the chest which have caused the abnormal conditions in the abdomen, and to which these are secondary; and, secondly, the recognition of conditions in the thorax which are the effects of certain abdominal diseases. In relation to some affections of abdominal organs, especially the spleen, it is of peculiar importance to examine the blood properly.

In order to give a comprehensive view of the chief kinds of abnormal physical conditions discovered by physical examination, they may conveniently be ranged under the following heads:—

- I. Conditions of the Walls.
- II. General Enlargements.
- III. General Retractions.
- IV. Local Conditions.

I. CONDITIONS OF THE WALLS.—These not uncommonly have to be recognised in themselves, as well as in relation with abnormal conditions within the abdominal cavity, and it is frequently of particular consequence to give definite and independent attention to the structures constituting the walls of the abdomen. The principal states which may be thus noticed are:—

1. Marked relaxation and flabbiness of the walls, so that they give little or no support to the structures within the abdomen.
2. Subcutaneous accumulation of fat in large amount.
3. Contraction or rigidity of the muscles, either generally or over a limited area, or affecting particular muscles, especially the rectus.
4. More or less enlargement of the superficial veins, with which is sometimes associated a peculiar dilatation of the veins at the umbilicus.
5. The presence of "white or silvery lines" on the skin—*lineæ albicantes*,—indicative of past or present distension of the abdomen, and stretching of its walls.
6. Subcutaneous œdema or dropsy of the walls.
7. Subcutaneous emphysema, or accumulation of air in the cellular tissue.
8. An opening of variable extent in the muscular or aponeurotic portion of the abdominal walls, which can be felt through the skin and subcutaneous structures.
9. Certain local diseases affecting the abdominal walls, such as inflammation and its consequences, abscesses or their remains, extravasations of blood, and tumours or new growths of any kind. It must be remembered that collections of pus may make their way into the abdominal walls from internal parts, and may appear to be localised there when such is not really the case.

II. GENERAL ENLARGEMENTS.—Examination of the abdomen has frequently to be directed specially to the determination of the cause or causes of general enlargement of this region. As a rule there is little or no difficulty in coming to a correct conclusion, provided the investigation is guided by an intelligent knowledge of the conditions upon which the

enlargement may depend, and these I will now endeavour to point out.

1. It must be borne in mind that in infants and young children the abdomen is always more or less prominent, owing to the comparatively large size of the liver, the smallness of the pelvis, and the depression of the diaphragm. This is very liable to become more marked from time to time, owing to digestive disorders and consequent formation of gases within the alimentary canal, especially if the walls are weak, as in rickety children. Hence mothers not uncommonly imagine that there is something wrong, and bring their children to have their abdomen examined. While recognising this fact, however, you must be careful in your investigation, for even in such subjects there may be morbid conditions present, causing actual enlargement.

2. A second group must be made to include those cases in which there is no real and positive disease, but in which, nevertheless, conditions of the normal structures are present, which may lead to very considerable abdominal enlargement, and for which you are likely to be frequently consulted by persons who have reached or passed middle life. Moreover, these conditions may obscure, or render difficult and unsatisfactory, the examination for other actual morbid states. For practical purposes, the cases coming under this group fall under two main classes, which, however, may be associated together, namely:—

a. Those in which the abdominal walls are very flabby, weak, and relaxed, this being often accompanied with a similar condition of the walls of the bowels, which readily become distended with gas, and so the belly protrudes to a variable extent, especially in the erect posture. This state of things is often exemplified in women who have borne many children.

b. Those in which there is much obesity, and an abundant local accumulation of fat. This is not only present in the subcutaneous tissue, but also within the abdominal cavity, and especially in the large omentum.

3. A collection of gas in the alimentary canal has already been alluded to as contributing to abdominal distension, and it often adds to the effects of other conditions, but there is an important class of cases in which gaseous accumulation within the abdomen is the sole or main abnormal condition producing enlargement. Sometimes gaseous distension of the stomach alone is sufficient to cause considerable prominence; more commonly the intestines or the whole alimentary tube are thus affected, giving rise in the lesser degrees to mere "flatulent distension," in the more marked degrees to more or less extreme "tympanites." This last condition is well exemplified in acute peritonitis, and in some forms of intestinal obstruction. In rare instances gas gains access to the peritoneal cavity, and collects there. It may be mentioned, in passing, that subcutaneous emphysema might give rise to some degree of apparent abdominal enlargement.

4. Cases in which enlargement of the abdomen is caused by some collection of fluid, are amongst the most common with which we have to deal. Œdema of the walls may produce a certain amount of enlargement, or may assist other causes. Most frequently the fluid is in the peritoneal cavity, and here the accumulation is chiefly dropsical, constituting the condition termed "ascites," of which you have seen several examples. The effusion may, however, be inflammatory in its origin, especially in connexion with chronic peritonitis; or in very rare instances there may be an extravasation of blood. Fluid in sufficient quantity to cause general abdominal enlargement may, again, be associated with organs. It has even happened that urine has collected in the bladder in such an amount as to produce this effect; and amongst the other chief conditions to be mentioned here are hydronephrosis or pyonephrosis, ovarian cysts, and accumulations within the uterus. Hydatids deserve separate recognition, as they may involve more than one structure at the same time; but they constitute an important cause of enlargement coming under this head.

5. In exceptional instances an accumulation of fæces has taken place within the intestines to such an extent as to produce very considerable general enlargement of the abdomen. I am acquainted with the history of one case in which this condition was mistaken for diffused cancer.

6. Occasionally solid or semi-solid material forms in the peritoneum in sufficient quantity to give rise to general abdominal enlargement. The material may be of a malignant

nature, especially colloid; or a mere inflammatory product, the result of prolonged chronic peritonitis.

7. It may happen that one of the solid abdominal organs reaches such dimensions from certain diseases that it leads to general enlargement. I have met with several instances in which this has depended upon an enlarged spleen; and it may possibly be due to the liver, or in very exceptional cases to the kidney, as the result of malignant disease.

8. A group may be made of special or peculiar forms of abdominal enlargement. These include—(a) that due to pregnancy; (b) ovarian tumour, a cause of enlarged abdomen of much importance; (c) the so-called "phantom tumour"; (d) a hernia of great size, protruding through an opening in the abdominal walls. I have known this to be so large that it seemed as if all the intestines were lying outside the abdominal cavity, under the skin.

9. Lastly, it must never be forgotten that the enlargement of the abdomen is not uncommonly due to two or more causes, each of which it is important to recognise. Amongst the chief conditions thus combined may be mentioned obesity or relaxed walls with flatulent distension or ascites; œdema and ascites together; enlarged organs, tumours, or growths with ascites; simultaneous enlargement of two or more organs, or at the same time with growths in the peritoneum; or a tumour consisting of solid and fluid portions, especially an ovarian tumour.

(To be continued.)

IS THE OVARIAN CELL PATHOGNOMONIC?—Mistakes in the diagnosis of ovarian tumours are by no means rare, even amongst our most skilful diagnosticians. In the *American Jour. of Med. Sciences* for April, 1882, Dr. Edwards publishes an account of some researches made in the Pathological Laboratory of the Philadelphia University, bearing upon the value of the ovarian cell as the diagnostic point, from which he concludes—(1) The ovarian cell is not diagnostic of the ovarian tumour; (2) we may have fluid from an ovarian tumour entirely devoid of the cell; (3) on the other hand, we may have an abdominal fluid, which is not ovarian, containing the cells in great abundance; (4) with the present state of our knowledge, the accurate microscopical diagnosis of ovarian dropsy is impossible. The most distinguished ovariotomists invariably make their first incision an exploratory one.—*Louisville Med. News*, May 27.

LEPROSY IN THE SANDWICH ISLANDS.—In a communication to the *Canada Medical and Surgical Journal* for April, Dr. Vineberg gives an account of a visit which he paid to the Leper Settlement at Molokai, Sandwich Islands. At the time of the visit there were 723 lepers (440 males and 283 females), besides sixty "kokuas," wives or husbands of lepers, who showed no signs of disease themselves. The patients, who were natives, were quite contented and happy, and as many of them had horses, amused themselves by racing about. There were seven white people, however, who fully realised their position, and looked forward to death as their only relief from suffering. Rations of food were liberally dealt out by the Board of Health, each leper receiving weekly 21 lbs. of native bread (*arum esculentum* slightly baked and pounded), and from 4 lbs. to 6 lbs. of fresh beef. Other necessities had to be paid for at cost price by the lepers or their friends. When a fresh batch of exiles arrive, they are cast upon the hospitality of those already there until their friends erect huts for them, the result being that the huts are filled to overcrowding; but this they rather like. Their chief complaint is want of water, to remedy which it is proposed to dig an artesian well. The lepers from the different islands are sent first to Honolulu, and when fifteen or twenty accumulate, they are shipped off to Molokai in a schooner kept for the purpose. The providing for the lepers is a heavy burden for the Hawaiian embryo Government. The disease is rapidly spreading on the islands, the lepers in the settlement not representing a third of those who are free and mixing with their fellow-beings. The first cases occurred about 1840, and there seems to be no doubt, Dr. Vineberg says, that the disease may be propagated by vaccination. Much remains to be done to ameliorate the wretched condition of these poor creatures, and Dr. Vineberg regrets that some of the large sums collected for Christianising them cannot be devoted to this purpose. He speaks with enthusiasm of the heroic sacrifices made on their behalf by the Catholic priest, Father Damiens, who is resident at the settlement.

ORIGINAL COMMUNICATIONS.

TWO CASES OF ARTHRITIS OF THE KNEE, IN WHICH OPIUM WAS FREELY EMPLOYED.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

Case 1.—Severe Rheumatic Arthritis—Administration of Opium in Large Doses—Recovery.

T. F., aged thirty-four, milkman; admitted October 12, 1881. His father died at the age of forty from phthisis; his mother is alive; is not subject to rheumatism or anything else. He never had any illness in his life before. Is exposed a good deal in his business to wet and cold. Worked until September 30. On October 1 he felt sick, and first had rheumatic pain in his left arm. He went on his rounds, but was very sick and had diarrhœa. Pain extended to left shoulder, then to right shoulder and arm, then to his body, and finally to his legs. He then took to bed, and has remained there ever since.

Present Condition.—Is a fairly healthy-looking, well-nourished man. When admitted, all pain had left him except in left knee and ankle; the knee was considerably swollen. Pulse 93, full and regular, strong, a little hard. Respirations 21, full. Temperature on admission 101°, last night 100·8°, to-day a.m. 100·4°. Heart normal. Lungs normal, except some fine moist crepitations over both fronts. Appetite fair; is rather thirsty. Bowels not open for two days. Liver and splenic dulness normal. Urine has been thick throughout his illness; on 13th, and again on 17th, was acid and not albuminous; specific gravity on 17th, 1026. Mist. sodæ salicylicatis ʒj., pot. iod. gr. iij., 4tis horis, was ordered on October 12. On night of 15th the left knee was very painful; the evening temperature 103·5°. On October 17 the same knee was still very painful, kept him awake at night; the joint was much swollen; it was blistered and poulticed. Evening temperature 103°. It was now put on a Macintyre's splint and protected by a cradle, and was then more comfortable.

October 24.—Urine remains non-albuminous; joint much the same. Ordered quin. disulph. gr. iij., vin. colch. ʒx., aq. chlorof. ʒj., ter die.

27th.—Patient likes ice-bag, applied on 25th. Vin. colch. increased at ʒxv. in sing. dosis.

28th.—Knee more painful to-day than it has ever yet been. It measures twelve inches and a quarter; on 26th measured twelve inches and a half. Ice-bag to each side of knee.

On 31st he had six leeches to knee. The form of the swelling of the knee was not that produced by distension of the capsule, but that of extra-capsular thickening; the ligaments were relaxed, and the head of the tibia fell backwards notably. The temperature of the left knee for many days was about 1° Fahr. higher than that of right. Patient says that some years ago the knee was put out by an accident. Tenderness and pain lingered longest at the external and internal tibial prominences of the articulation. Blisters were applied to this situation two or three times, or oftener. Sodæ pot. tart. ʒss., vini colch. ʒxv., aq. ʒj., was ordered ter die; no benefit resulted from this or any other previous medicine.

On November 3 he began to take opii gr. j. ter die, which he continued, in doses gradually increased in frequency, until he had seven or eight grains daily. The opium seemed to agree well; its effects were carefully watched, but no narcotism of any consequence occurred.

Oleate of mercury solution was painted over the knee on November 14, and for some time subsequently.

The temperature from October 17 to November 4 scarcely exceeded 101°; thence on to November 13 was seldom above 100°; from November 15 to 21st was normal; and subsequently was not taken, as it appeared needless to do so.

December 5.—Both knees are of the same temperature. The left limb is easy lying on a pillow, but the joint is stiff and admits of but little movement; it is quite free from pain on handling.

19th.—Left knee quite free from pain; can be moved a little.

26th.—Walks about a good deal with sticks; knee a little more mobile. I made him lie down, and flexed the joint forcibly, causing him a good deal of pain, and feeling myself a distinct snap. He has pain in lower lumbar region the last two days, which makes it difficult for him to stoop. Left hip quite mobile. Ammon. muriatis gr. xx., mist. ammon. acet. ʒj., 4tis horis.

January 2, 1882.—Has got pain again at back of left knee; nowhere else. A blister was applied to the ham, and removed the pain entirely; Scott's dressing was soon after applied to the knee.

He went out January 15 or thereabouts. He came to hospital some days later, having walked, he said, fourteen miles.

Case 2.—Severe Rheumatic Arthritis—Use of Opium in Large Doses—Recovery.

W. M., aged twenty-six, carman; admitted January 13, 1882. He was taken ill on December 13, through getting wet. He had pains in the middle of his back, was hot and feverish, and perspired freely. No pains in limbs. Pains in his back occurred for some weeks before this; it ceased eight days ago, but was succeeded by pain in right side, and cough with copious expectoration. Some hæmoptysis occurred for two or three weeks before the side-pain came on. He has had sores on penis, and eruption, gonorrhœa, and a suppurating bubo. In other respects has been healthy. Parents, brothers, and sisters healthy; no phthisis among them.

Present Condition.—Has pain in right side, where friction-sound is heard. Dulness in both lower backs, and absence of breath-sounds there and in right side. Respirations 36, shallow; pulse 140, rather small. Pot. iod. gr. iij., mist. potass. citrat. ʒiss., ter die. Subcut. morphia gr. $\frac{1}{8}$ lat. dol. Diet S. beef-tea, milk.

A blister was applied on the 14th to the right side. On the 18th he could lie on either side with ease; friction-sound gone. Pulse 112; respirations 20. Urine of 19th had specific gravity 1032; its quantity was normal; it contained no albumen or sugar.

23rd.—He feels well, but has rheumatic pain in the right knee; sleeps well; appetite good. Liq. ferri peracet. ʒxx., mist. ammon. acet. ʒj., ter die; oleate of mercury and morphia to be painted over lower backs.

26th.—The dulness area in backs has very much diminished. On right, it extends about three inches above last rib; on left, only an inch and a half. There is good entry of air, vocal resonance, and fremitus down to these levels. Temperature normal.

31st.—Pulse 105, soft and jerky. Lower ribs expand; heart's sounds normal. Very little pain in knee to-day, but it was very painful last night; no swelling of the part. Sodæ salicylicatis gr. xx., pot. iod. gr. ij., tinct. cinchon. ʒj., decoc. cinch. ʒj., ter die. Temperature 99°; pulse 106; respirations 26.

February 6.—Knee has got worse; was very painful yesterday; a blister to its inner side last night; it is swollen and tender. Opii gr. j. quater die.

10th.—Had on 7th eight leeches to knee, which gave much relief. He has not improved since, but has not got worse. Right knee measures fourteen inches and a half in circumference; left only twelve inches and a half. The swelling is most prominent above patella, which floats on a copious effusion; most pain is felt at inner side. He is very drowsy, sleeps much during day, sweats very much by night.

23rd.—Knee much less painful on 18th; is now very comfortable, but does not get smaller. Pt. c. pil. vj. in dies. Knee to be iced three or four times a day for ten minutes at a time.

27th.—The ice is agreeable to patient, and his knee is quite comfortable or more easy after icing. He is rather more drowsy and sweats more. Pt. c. opio gr. viij. in dies.

March 2.—Knee measures fourteen inches and three quarters, is quite comfortable, but hotter than natural. He can semiflex the knee without pain. Pt. c. opio gr. viij. in dies; rabbit, greens.

9th.—Size of knee same, painless, bears handling well, is hotter than left; swelling is not at all tense. A well-marked tender node is present on right tibial crest, which has been noticed since February 10. Pot. iod. gr. xx., ammon. carb. gr. iv., inf. cascarrill. ʒj., ter die.

12th.—Knee free from pain; the limb is slung to the

cradle which protects it, and has been so ever since the inflammation commenced. To have Scott's dressing applied.

20th.—Opium reduced to four grains. Aspect anæmic. Pain in right side for several days—it seems to be myalgic.

27th.—Doing well; can move knee pretty freely and stand. Uvula long; much irritability of throat; lunar caustic to be applied. To resume the pot. iod. mixture, which was omitted a few days ago.

April 3.—Sickness again from iodide; omit. Is very pallid. Knee painless, but considerably swollen. To remain now in bed (he had been up some days), and to have an elastic bandage applied, extending from ankle to above knee. Quin. dis. gr. j., liq. ferri perchlor. ʒxv., aq. ʒj., ter die.

10th.—Swelling of knee very much reduced; he can walk about fairly well. Allowed to get up.

13th.—Seems quite convalescent; knee comfortable with elastic knee-cap.

20th.—Doing well. Came as out-patient. Walks fairly; only complains of epigastric pain.

Remarks.—The recognition of the antiphlogistic power of opium is no novelty. Pereira reckons it a powerful auxiliary remedy. In the present day, when we give it largely, uncombined with mercury, as in the treatment of peritonitis, we regard it evidently as our mainstay. Of its power to arrest mucous profluvia, and even hæmorrhage, in many instances there can be no reasonable doubt. As I argued, twelve years ago, in "Functional Nervous Disorders," page 810, whether we regard the intellectual, the motor, the sensory, or the vasa departments of the nervous system, the primary action of opium appears to be that of a stimulant tonic. As such it is doubtless most suited to asthenic states of system, or to cases where sufficient local depletion has been employed. The existence of severe pain, as in arthritis, would certainly be an indication for its employment, and it should be administered in doses sufficient to allay the suffering. Trousseau's rule should be borne in mind, that if the disease be reckoned as 20, opium should be given as 21; that is, the force of the remedy should be just a little greater than that of the disease. It may be objected to the cases I have cited that various other means were employed, as absolute rest and protection of the part, and the application of cold, besides leeches and blisters, so that it is difficult to estimate how much of the result is to be attributed to the opium. To this it may be replied, that in Case 1, especially, much other medication had been fruitlessly used; that in Case 2 opium was relied on solely with occasional icing; that the theory of its beneficial effect is rational; and lastly, that the drug was given in no placebo doses, but in such as must have been injurious if they had not been appropriate and helpful. Scott's dressing was not applied in either case until the inflammation had very materially subsided. The good effect of the elastic bandage was very marked in Case 2, but could not, I am sure, have been borne at an earlier period. In this instance the patient was syphilitic, but the arthritis was not, I think, dependent on this cause, as pot. iod. was not tolerated.

DIPHTHERIA IN THE ST. PETERSBURG FOUNDLING HOSPITAL.—Dr. Froebelius, in a communication to the German Medical Society, states that the reports as to the epidemic prevalence of diphtheria in this institution have been exaggerated. The following is the exact number of cases—

	Cases.	Deaths.	Entire number of patients.	Per cent.
1876 ...	103	100	7,635	1·3
1877 ...	93	88	6,411	1·4
1878 ...	88	85	5,448	1·6
1879 ...	29	27	5,648	0·5
1880 ...	43	40	5,289	0·8
1881 ...	73	59	6,731	1·0
	429	399	37,162	

It has been found in the Hospital that on placing infants suffering from inflammation of the eyes in a separate ward the diphtheritic form becomes much more frequent than when they are distributed among other patients or children in health; and Dr. Froebelius believes that the statements of the contagiousness of diphtheria are generally exaggerated.—*Petersb. Med. Woch.*, May 6.

OBSERVATIONS ON

THE PRE-ERUPTIVE STAGE IN SMALL-POX;

WITH HISTORY OF CASES.

By MONTAGUE D. MAKUNA, L.R.C.P. Lond.,
Late Medical Superintendent, Fulham Small-pox Hospital.

*Cases of Prolonged Exposure to Infection.**(Concluded from page 607.)*

Cases 41, 42.—C. O., aged thirty-eight, with one good and one indifferent mark, was first taken ill on June 11; date of eruption June 16, admission 18th. He suffered from V. confluens, and died. His daughter, E. O., aged twelve, with three good marks, was admitted on June 29, the first day of eruption; she suffered from V. discreta, and recovered. In her the inter-eruptive period was fourteen days. T. O., the brother of the latter, aged fifteen, with two good marks, was admitted on July 5, the first day of eruption; he suffered from V. discreta, and recovered. The inter-eruptive period in him was twenty days.

Case 43.—E. C., aged twenty-seven, with three indifferent marks, was first taken ill and had rigors and backache on June 5, 1878; date of eruption 9th, admission 11th; he suffered from V. discreta, and recovered. His wife, M. C., aged thirty, with traces of vaccine cicatrices, was admitted on June 26; date of eruption 25th; she suffered from V. discreta, and recovered. She was exposed for seven days; pre-eruptive stage twenty days.

Case 44.—M. A., aged twenty, with one indifferent and two traces of marks, was admitted on June 19; date of eruption June 13; she suffered from V. discreta, and recovered. Her brother, L. H., aged seven, with four indifferent marks, was admitted on June 29, the probable day of eruption; he suffered from V. discreta, and recovered. The inter-eruptive stage was sixteen days.

Cases 45, 46.—L. N., aged five, with four indifferent marks, was admitted on September 26, 1878; probable date of eruption 24th; she suffered from V. discreta, and recovered. Her brother, W. N., and M. P., a lodger in the same house, aged two years and ten months respectively (the latter unvaccinated, the former with three indifferent marks), were admitted on October 9; date of eruption in them was the 8th. The inter-eruptive period in these two cases was fourteen days.

Case 47.—A. H. P., aged twenty-three, with traces of vaccine cicatrices, had the characteristic prodromata on November 28, 1878; date of eruption 25th, admission 27th. He suffered from V. confluens, and died. His mother, J. P., aged fifty-three, said to have been vaccinated, was admitted on December 10; date of eruption 9th. She was exposed for six days, and the pre-eruptive stage in her was sixteen days.

Case 48.—W. C., aged twenty-nine, with two good marks, was admitted on November 26, 1878; the date of the initial stage was November 22, eruption 24th, admission 26th; he suffered from V. discreta, and recovered. His wife, E. C., aged twenty-five, with one indifferent mark, was admitted on December 11; date of eruption 10th; she suffered from V. discreta, and recovered. She was exposed for five days, and the pre-eruptive stage in her was nineteen days. She was seven months pregnant on admission, and passed through the various stages of the disease safely, and about a month subsequent to her discharge he was reported to have been delivered of a healthy son. He was vaccinated as usual, and I was informed five months after his mother's discharge that vaccination took well. I have seen several such cases where fœti have entirely escaped, as well as those who have gone through the disease in the womb.

Cases 49, 50.—M. F., aged fifteen, with four indifferent marks, was admitted on November 28, 1878; date of eruption 26th; she suffered from V. varicelloides, and recovered. Her sister and a brother, with two good and six indifferent marks respectively, had eruptions on them on the 13th and 10th respectively; admission December 13; they both suffered from V. discreta, and recovered. The inter-eruptive period in them was eighteen and fifteen days.

Case 51.—W. F., aged forty-eight, unvaccinated, was first taken ill on January 5, 1879; date of eruption 8th, admission 10th; he suffered from V. confluens, and died. His son, W. F., aged sixteen, having four indifferent marks, was

taken ill on January 17, and had backache and symptoms of malaise; date of eruption January 20, admission 23rd; he suffered from V. discreta, and recovered. He was exposed to the infection for six days. The period of incubation was twelve days, and the pre-eruptive stage was fifteen days.

Case 52.—A. N., aged twenty-three, with three indifferent marks, was admitted on February 11; date of eruption 8th; she suffered from V. discreta, and recovered. Her husband, J. S., aged twenty-seven, with two indifferent marks, had eruption on him on the 24th, the day of admission; he suffered from V. discreta, and recovered. The inter-eruptive stage was sixteen days.

Cases 53, 54.—D. J., aged forty, with three indifferent marks, had eruption on him on February 16, 1879; he was admitted on the 18th, suffering from V. discreta, and was discharged recovered. His daughter, G. J., aged ten, with four indifferent marks, and revaccinated unsuccessfully on February 26, had eruption on her on March 1; admission March 5; she suffered from V. discreta, and recovered. The inter-eruptive period in her was fourteen days, and exposure to infection was about four days. Her sister, J. J., aged eight, with four indifferent marks, took the disease from G. J.; date of eruption March 15, admission 17th; she suffered from V. discreta, and recovered. The inter-eruptive period in her was fourteen days, and she was exposed to infection for about four days.

Case 55.—E. J. W., aged fourteen, with two indifferent marks, was admitted on February 19, 1879; date of eruption 16th; he suffered from V. discreta, and recovered. His brother, W. W., aged seventeen, with one good and one indifferent mark, had eruption on him on March 2; admission March 4; he suffered from V. discreta, and was discharged recovered. The inter-eruptive period was fifteen days.

Case 56.—P. W., aged fifteen, unvaccinated, was admitted on March 15, 1879; date of eruption 11th; he suffered from V. confluens, and recovered. His sister, A. W., aged eight, unvaccinated, had eruption on her on March 26; admitted on March 27, suffering from V. confluens, and was discharged recovered. She was exposed for seven days, and the inter-eruptive period was fifteen days.

Case 57.—M. A. D., aged thirty-six, with one indifferent mark, was admitted on March 4; date of eruption March 1; she had been six months pregnant, and aborted on the first day of eruption; she suffered from V. discreta, and recovered. Her daughter, E. S. D., aged seven, with two indifferent marks, had eruption on her on March 15, and was admitted on March 17, suffering from V. discreta, and recovered. She was exposed for about six days, and the inter-eruptive period was fourteen days.

Cases 58, 59, 60, 61, 62, 63.—W. H. B., aged twelve, with four indifferent marks, was admitted on March 27, 1879; date of eruption 24th; there was no initial stage; he suffered from V. discreta, and recovered. He was followed by three sisters and four brothers. One sister was in service at Kensington, and her case is recorded among those of single exposure. Other six cases were as follow:—L. E., aged two, with two good marks; L. F., aged five, with three indifferent marks; W. J., aged eight, with two indifferent marks; A. C. J., aged eight, with three indifferent marks; M. J., aged ten, with two indifferent marks; T. M., aged thirteen, with four indifferent marks,—were admitted on April 8 suffering from V. varicelloides (date of eruption April 5), and were discharged recovered. They were exposed to the source of infection for four days, and the pre-eruptive stage was twelve days.

Case 64.—A. L., aged twenty-one, with two traces of marks, was admitted on March 24; date of eruption 23rd; he suffered from V. discreta, and recovered. A fellow-lodger, J. N., aged twenty-one, unvaccinated, was first taken ill, and had backache, headache, and sickness on April 8, and was admitted the following day—the first day of eruption; he suffered from V. confluens, and died. He was exposed for one day; period of incubation was sixteen days, and the pre-eruptive stage was seventeen days.

Case 65.—S. B., aged nineteen, with three indifferent marks, was admitted on April 3, 1879; date of eruption March 31; he suffered from V. discreta, and recovered. His brother, R. B., aged thirteen, with traces of vaccine marks, had eruption on him on April 6; admission 10th; he suffered from V. varicelloides, and recovered. He was exposed

or four days, and the pre-eruptive stage was about eight days.

Case 66.—M. A. K., aged twenty-one, with one indifferent mark, was first taken ill on March 18, 1879; date of eruption 20th, admission 23rd; she suffered from V. discreta, and recovered. W. M., a fellow-lodger, aged thirty-nine, with one indifferent mark, had eruption on him on April 6; admission April 11; he suffered from V. discreta, and recovered. He was exposed for six days; pre-eruptive stage nineteen days.

Case 67.—N. H., aged twenty-eight, with one indifferent mark, had eruption on him on March 7, 1879, and was admitted on the 9th, suffering from V. confluens, and recovered. His wife, E. H., aged thirty, with three traces of marks, was first taken ill and had regular premonitorys on March 20; date of eruption 23rd, admission 24th; she suffered from V. discreta, and recovered. She was exposed for three days, period of incubation was thirteen days, and the pre-eruptive stage was sixteen days.

Case 68.—J. L., aged thirty-four, with three indifferent marks, had eruption on him on March 4, 1879; admission 5th; he suffered from V. discreta, and recovered. His wife, M. L., aged thirty-four, with three indifferent marks, had eruption on her on March 19, the day of admission; she suffered from V. discreta, and recovered. The inter-eruptive period in her was fifteen days; she was exposed for about three days.

Case 69.—L. B., aged twelve, with two indifferent marks, had eruption on her on April 22, 1879; admission 26th; she suffered from V. discreta, and recovered. Her sister, F. B., aged six, unvaccinated, had eruption on her on May 10; admission May 13; she suffered from V. confluens, and died. The inter-eruptive period was eighteen days.

Case 70.—W. L., aged forty, unvaccinated, had eruption on him on April 13, 1879; admission 14th; he suffered from V. confluens, and died. G. S., a fellow-lodger, aged twenty-four, unvaccinated, had eruption on him on April 27; admission 29th; he suffered from V. confluens, and recovered. The inter-eruptive period was fourteen days.

Cases 71, 72, 73, 74.—L. H., aged fourteen, unvaccinated, had eruption on him on April 14, 1879; date of admission April 25; he suffered from V. coherens, and recovered. He was followed by three brothers and a sister living in the same house, but there were several other cases in the adjoining houses arising from him. W. H., aged eighteen, with two indifferent marks, had eruption on him on April 29; he suffered from V. confluens, and recovered. He was exposed to the infection for nearly a fortnight, and the pre-eruptive stage was about fifteen days. E. H., aged sixteen, with two indifferent marks, suffering from V. varicelloides; D. H., aged nine, unvaccinated, suffering from V. confluens; J. H., aged seven, with traces of marks, suffering from V. varicelloides,—were admitted on April 30, the probable date of eruption; they recovered. They were exposed for nearly a fortnight; the pre-eruptive stage in them was about sixteen days.

Case 75.—E. P., aged twenty-four, with one indifferent mark, had eruption on her on May 7, 1879; admission May 10; she suffered from V. discreta, and recovered. Her husband, T. P., aged twenty-four, with five indifferent marks, had eruption on him on May 20; admission 21st; he suffered from V. discreta, and recovered. He was exposed for about six days, and the pre-eruptive stage was about fifteen days.

Case 76.—N. W., aged fifty-three, unvaccinated (the same man who was a source of infection in A. S., a case of single exposure), had eruption on him on May 13, 1879; admission 20th; he suffered from V. maligna confluens, and died. His son, G. W., aged eight, with traces of marks, had eruption on him on June 1, and was admitted the following day, suffering from V. discreta, and discharged recovered. He was exposed for ten days; pre-eruptive stage was twenty-two days.

Case 77.—G. W., aged twenty, with four indifferent marks, was admitted on May 12; date of eruption May 9; he suffered from V. discreta, and recovered. His father, J. W., aged fifty-five, was first vaccinated on May 13, the fifth day of eruption in the son, and it had taken well; date of eruption May 25, admission 26th; he suffered from V. confluens, and recovered. He was exposed for about six days; the inter-eruptive period was sixteen days.

Case 78.—M. W., aged nine, unvaccinated, was first taken

ill on May 30, 1879; date of eruption June 2, admission 7th; he suffered from V. maligna confluens, and died. A fellow-lodger, E. M., aged twenty-six, with four indifferent marks, was taken ill on June 13 with general malaise and languor; date of eruption 20th, admission 21st; he suffered from V. confluens, and recovered. He was exposed for nine days, the period of incubation was thirteen days, and the pre-eruptive stage was twenty days.

Case 79.—A. M., aged twenty, with two indifferent marks; date of eruption June 22, 1879; admission 24th; he suffered from V. discreta, and recovered. His brother, W. M., aged sixteen, with one indifferent mark; eruption out on July 5; admission 8th; he suffered from V. confluens, and recovered. He was exposed for about four days; the inter-eruptive period was fourteen days.

Case 80.—R. N., aged fifty, with a trace of vaccine cicatrix; date of eruption July 25, 1879; admission the following day; he suffered from V. discreta, and died of chronic pulmonary complications. A. M., aged twenty-one, a lodger in the same house, with one indifferent mark, had eruption out on August 8; admission 12th; he suffered from V. confluens, and recovered. He was exposed to the infection for about three days, and the pre-eruptive stage was about thirteen days.

Case 81.—F. W., aged twenty-eight, with one indifferent mark, was first taken ill and had malaise and backache on July 2, 1879; date of eruption July 6, admission 7th; she suffered from V. discreta, and recovered. Her husband, F. W., aged thirty-one, with five indifferent marks, had eruption on him on July 20, the date of admission; he suffered from V. discreta, and recovered. He was exposed for six days, and the pre-eruptive stage was eighteen days.

Case 82.—C. F., aged twenty-four, with one indifferent mark; date of eruption September 5, 1879, admission the same day; he suffered from V. maligna confluens, and recovered. His wife, L. F., aged twenty-two, with two indifferent marks, had premonitorys on September 18; eruption 22nd, admission the same day; she suffered from V. discreta, and recovered. She was exposed for about three days. The period of incubation was about fifteen days, and the pre-eruptive stage was nineteen days.

Case 83.—H. M., aged twenty-four, with a trace of vaccine mark; date of eruption December 11, 1879, admission 15th; she suffered from V. confluens, and died. Her husband, T. M., aged fifty-two, with three indifferent marks, had the premonitorys on December 27; date of eruption 28th, admission 30th; he suffered from V. confluens, and died. He was exposed for six days, the period of incubation was eighteen days, pre-eruptive stage was nineteen days.

Case 84.—H. J., aged three, unvaccinated; date of eruption January 6, 1880, admission 8th; he suffered from V. confluens, and died. His brother, G. J., aged ten, with eight indifferent marks, had eruption on him on January 22, admission 24th; he suffered from V. varicelloides, and recovered. He was exposed for about five days; the inter-eruptive period was sixteen days.

Case 85.—K. M., aged eleven, with one indifferent mark, had the premonitorys on December 31, 1879; eruption January 3, 1880; admission January 6; she suffered from V. discreta, and recovered. A fellow-lodger, E. C., aged thirty-four, with one indifferent mark, was first taken ill on January 16, and had giddiness and pains all over the body; eruption January 18, admission 20th; she suffered from V. confluens, and recovered. She was exposed for seven days; the period of incubation was sixteen days; the pre-eruptive stage was eighteen days.

Cases 86, 87.—E. D., aged fifteen, with two good and two indifferent marks, caught the disease from her place of service; she was taken ill on February 10, 1880, with epigastric pains, nausea, and vomiting; date of eruption 11th, admission 13th; she suffered from V. varicelloides, and recovered. Her brother, J. D., aged nineteen, with three indifferent marks, was first taken ill with backache, headache, and lassitude on February 19; date of eruption 20th, admission 22nd; he suffered from V. discreta, and recovered. He was exposed for four days; period of incubation was nine days; pre-eruptive stage was ten days. E. S., aged twenty-nine, unvaccinated, was first taken ill on February 19, 1880; date of eruption 21st, admission 22nd. He was exposed for four days; period of incubation nine days; pre-eruptive stage eleven days.

Cases 88, 89.—B. D., aged twenty-five, unvaccinated, was

ill for nearly a fortnight, but had no particular symptom to complain of, except indisposition; date of eruption February 11, 1880, admission 13th; she suffered from *V. maligna hæmorrhagica*, and died. She was confined on February 11, the first day of eruption; the infant was vaccinated on the 13th, the day of admission. The vesicles at the seat of punctures were developed, but how far they were due to the inoculation of *variola-virus* it is impossible to say, as the operation was done in the ward. The date of eruption in the infant was February 21, the eleventh day from birth, and the eighth day of vaccination and admission; she suffered from *V. discreta*, and died. She was exposed for four days; the pre-eruptive stage was ten days. It is remarkable that the constitution of the infant in the foetal stage remained untainted. I have seen cases born with eruption, generally in the third week of the disease in the mother; cases that have gone through the various stages of the disease in the womb, and have been rendered insusceptible to vaccination; and cases where the infection in the mother's system had no influence on the foetus, the infants being born perfectly healthy weeks and months after, and afterwards successfully vaccinated. My experience in cases of revaccination of pregnant mothers and of the vaccination of their infants is much the same. B.D.'s husband, J.D., aged twenty-six, with one indifferent mark, was first taken ill on February 27, with backache and lassitude; date of eruption February 28, admission March 1; he suffered from *V. coherens*, and recovered. He was exposed to the source of infection for four days; period of incubation was sixteen days, and the pre-eruptive stage was seventeen days.

Case 90.—G. G., aged thirty, with two indifferent marks, was first taken ill on February 9, 1880, and had headache, backache, and lassitude; eruption 11th; admission February 17; he suffered from *V. discreta*, and recovered. T. M., aged nineteen, a lodger, with one indifferent mark, was first taken ill on February 25, with headache, backache, sickness, and lassitude: date of eruption 26th, admission 28th; he suffered from *V. varicelloides*, and recovered. He was exposed to the source of infection for nine days; the period of incubation was fourteen days, and the pre-eruptive stage was fifteen days.

In these cases it will be seen that the patients were related to the primary ones,—the relationship and probably the sources of infection being as follows:—26 were brothers, 18 sisters, 14 fellow-lodgers, 9 husbands, 7 daughters, 6 wives, 4 fathers, 3 sons, 2 mothers, and 1 brother-in-law. They all had lived in the same houses and occupied the same rooms respectively, with but few exceptions.

Of these 90 cases the pre-eruptive stage was determined in 67. It was as follows:—Eight days in 1 case, ten days in 3 cases, eleven days in 2, twelve days in 6, thirteen days in 2, fourteen days in 7, fifteen days in 7, sixteen days in 13, seventeen days in 8, eighteen days in 6, nineteen days in 5, twenty days in 3, twenty-one days in 2, twenty-two days in 1, and twenty-three days in 1.

Of these 67 cases the period of incubation was determined in 22 cases, and was as follows:—Nine days in 3 cases, twelve days in 2 cases, thirteen days in 4, fourteen days in 3, fifteen days in 2, sixteen days in 5, seventeen days in 1, eighteen days in 1, and twenty days in 1.

The inter-eruptive period, which closely corresponds to the period of incubation, was as follows in the remaining 23 cases:—Thirteen days in 2 cases, fourteen days in 8, fifteen days in 5, sixteen days in 5, eighteen days in 2, and twenty days in 1.

The history of these cases, as well as that of those to follow, clearly shows that the type and the severity of the disease bear no relation whatever to the length of the period of incubation, as is stated by several authors. It is clearly shown also that the period of incubation is non-infectious. If it had been otherwise, the disease would have occurred in these cases, most of whom were bedmates, at a period very much shorter, or coincidently with the primary cases.

I shall now give the history of twelve cases of single exposure, and a case in whom the subject was exposed to the source of infection during her three visits on three consecutive days, lasting about half an hour each.

Cases of Single Exposure.

Case 1.—A. B., aged sixteen, a domestic in service at Kensington, visited her parents, living in Chelsea, on the

evening of March 26, 1879, where her brother was stricken with small-pox, and it was the third day of eruption on him. She was first taken ill on April 4, complaining of the symptoms of cold, feverishness, headache, and lassitude; date of eruption 6th, admission to the hospital 7th. She had visited her parents and exposed herself to the source of infection but once. She had four indifferent marks, suffered from *V. varicelloides*, and recovered. In her the period of incubation was nine days, and the pre-eruptive stage was eleven days.

Case 2.—Mrs. N. D., aged twenty-four, living in Parson's Green, went down to the house of L. H., and saw him removed to the hospital on April 25, 1879. She felt faint on seeing him. There were no premonitory in her case; date of eruption May 3, and removal to the hospital 8th. She had one good mark. She suffered from *V. discreta*, and recovered. The period of incubation as well as the pre-eruptive stage in her was eight days.

Case 3.—G. N., of Putney, aged thirty-three, had eruption on him on April 30, 1879, and was admitted to the hospital on May 4. His friend, R. W. L., aged twenty, living in the same locality, visited him on May 2, the third day of eruption in G. N. He was taken ill on May 15, and complained of general malaise; date of eruption 17th. He had three indifferent marks. Suffered from *V. coherens*, and recovered. The period of incubation in him was thirteen days, and the pre-eruptive stage was fifteen days.

Case 4.—Mrs. A. S., aged fifty-three, living in Kensington, was visited by S. W., an unwelcome guest, on May 20, 1879. It was the eighth day of eruption in him; he was suffering from *V. confluens*, and delirious. He got out of bed, dressed himself, and drove down in a cab to her house, in a most frantic condition; was with her for a few minutes, when he was removed to the Kensington Workhouse, and subsequently to the hospital. She was indisposed for a week, complaining of malaise and backache. Date of eruption June 2, admission 4th. She had a trace of a vaccine mark; she suffered from *V. coherens*, and recovered. In her the period of incubation was but six days, so to speak, the initial stage was seven days, and the pre-eruptive period was thirteen days.

Case 5.—J. P., a tailor, aged twenty-one, residing in St. Pancras, visited his friend T. M., residing in Fulham, and who was suffering from small-pox, on May 13, 1879. He was taken ill on May 25, having symptoms of slight indisposition; date of eruption 27th. He had two indifferent marks; in him the period of incubation was twelve days, and the pre-eruptive stage was fourteen days.

Cases 6, 7.—A. D., living in the neighbourhood of Grosvenor-square, was in the habit of visiting Margate almost every week. He felt indisposed on May 8, 1879, having symptoms of fever, and thinking a blow might do him good, started on his trip the same day. He returned the following evening, May 9, and directly went to a friend's house in Grosvenor-mews. While there, he fainted before the lapse of a few minutes, and was removed to his house in a cab in half an hour's time. The eruption appeared on him the following morning, and he was subsequently removed to the hospital. His friend, P. B., felt ill on May 21; date of eruption 22nd; was admitted to the hospital the following day. He had five indifferent marks; suffered from *V. confluens*, and recovered. His infant daughter, G. C., three months old, unvaccinated, felt feverish on May 23; date of eruption 25th, admission 26th; she suffered from *V. discreta*, and died. In P. B. the period of incubation was thirteen days, and the pre-eruptive stage was fourteen days. In the case of his daughter the period of incubation was fifteen days, and the pre-eruptive stage was seventeen days. In this group we find that A. D. infected P. B. and his daughter on the last day of the initial stage.

Case 8.—Colonel R., aged fifty-five, vaccinated, but not revaccinated for years past, attended a hospital committee meeting, and went down to an occupied ward on May 9, 1879. On the 18th he had a rigor, and was indisposed; date of eruption 22nd; he suffered from *V. discreta*, and recovered. He had much fever, and a few spots on him. He was not isolated, and went about the town as usual. In him the period of incubation was nine days, and the pre-eruptive stage was thirteen days. His wife took the disease from him, and her case is classed among those of continuous exposure. I am indebted to Dr. Arthur Longhurst for important notes on these cases.

Cases 9, 10.—Mr. and Mrs. M. W., both aged twenty-five, living in the Strand, paid a visit at his brother's place in Stoke Newington, where an unvaccinated infant, aged eight weeks, was taken ill with small-pox, on November 29, 1879. The wife was taken ill on December 8, with slight pain in the back and malaise; date of eruption 10th. She had two indifferent marks; the husband was indisposed from December 7, had backache and high fever on the 11th; date of eruption 13th. They had seen the baby only once, but the husband had attended the funeral of the infant on December 6. In the case of the wife the period of incubation was nine days, and the pre-eruptive stage was eleven days. In the case of the husband the period of quiescence was eight days; he was indisposed for four days before the regular premonitories appeared on him, and these lasted for two days, making the pre-eruptive period in him fourteen days.

Case 11.—C. H., aged fifty-two, of St. Marylebone, was admitted on December 30, 1879. She went down to her brother's place near Regent's-park on December 14, to nurse her niece, in whom it was the third day of eruption. She remained there the whole night, and returned home the following morning on the removal of the child to the hospital. It was the only time she had visited her brother's place, nor had she exposed herself to any other known source of infection. She felt slightly indisposed on December 25; date of eruption 26th; she had three indifferent marks. In her the period of incubation was eleven days, and the premonitories lasted for about twenty-four hours.

Case 12.—W. B., aged four, unvaccinated, residing in Fulham, was taken ill with small-pox, and was exposed in a public dispensary for days together before the case was made out, and admitted to the hospital on March 7, 1879, probably the sixth day of eruption. P. W., aged twenty-six years, with one indifferent mark, a barmaid in a public-house in Ifield-road, saw the child, on a visit to her mother's, living next door in George's-square, on March 3. There were no premonitories in her; date of eruption 14th; admission March 15. She suffered from V. discreta, and recovered. In her the period of incubation and the pre-eruptive stage was about eleven days.

Case 13.—A case in which the subject was exposed to the source of infection for three consecutive days during her half-hour visits to her ill friend. S. D., of Chelsea, aged forty-four, with one indifferent mark, had headache and general malaise on July 17, 1879; date of eruption 21st evening, admission 22nd; she suffered from V. confluens, and recovered. E. T., also of Chelsea, aged twenty-eight, with one good mark, paid her friend her first visit on July 19, the second day of her illness; her second visit was on the 20th, the third day of her illness; her third visit was on July 21, the first day of eruption in the first case. First symptoms of illness in E. T. commenced on August 2; date of eruption August 3, admission August 6. She suffered from V. varicelloides, and recovered. From the day of her first visit, the period of incubation in her was fourteen days, and the pre-eruptive stage was fifteen days. The inter-eruptive period between the two cases was thirteen days.

In one of these cases the period of incubation was six days, with seven days of the initial stage; in one case it was eight days, in two cases it was nine days, in one case it was eleven days, in three cases it was twelve days, in two cases it was thirteen days, and in one case it was fourteen days. It is evident that the Cases 6 and 7 took the disease from the source during its initial stage; while in Case 13 it is probable that she became infected during her first visit to her ill friend, in whom it was the second day of the initial stage.

It is stated that when susceptible individuals are exposed to the source of infection continuously, the period of incubation in them is much shorter. In my fourteen cases, given below, the period of incubation was as follows:—Ten days in one, eleven days in three, twelve days in one, thirteen days in three, fourteen days in one, fifteen days in one, seventeen days in three, and nineteen days in one.

Cases of Continuous Exposure.

Case 1.—A. N., aged twenty-eight, with one indifferent mark, was engaged as a ward servant, revaccinated unsuccessfully, and taken on duty on January 25, 1878. She felt unwell on February 9; date of eruption 11th; she made a good recovery. In her the period of incubation was fifteen days, and the pre-eruptive stage was seventeen days.

Case 2.—G. S., aged eight, with one indifferent mark, was admitted to a metropolitan small-pox hospital on March 22, 1877, and transferred to Fulham Hospital on March 26; date of eruption April 3; he suffered from V. discreta, and recovered; in him the pre-eruptive stage was twelve days.

Case 3.—A. B., aged four, with one indifferent mark, was admitted to the hospital, through mistake, on April 15, 1878. She was first taken ill on the 28th; date of eruption 30th; she suffered from V. discreta, and made a good recovery. The period of incubation in her was thirteen days, and the pre-eruptive stage was fifteen days.

Case 4.—C. T., aged twenty-seven, with one good mark, was admitted with erythema on May 8, 1878. She was revaccinated unsuccessfully, and kept in quarantine for sixteen days, and was discharged quite well on May 24. She had no premonitories; date of eruption May 27, when she was readmitted; she suffered from V. varicelloides, and recovered. In her the period of incubation was nineteen days.

Case 5.—E. S., aged four, with one indifferent mark, was admitted with lichen on May 15, 1878, and was discharged on May 29, after a quarantine of fourteen days. She had no initial stage. She was readmitted on June 1, the day of eruption in her; she suffered from V. discreta, and recovered. In her the period of incubation was seventeen days.

Case 6.—D. A., aged four, with two indifferent marks, was admitted, through misadventure, on July 8, 1878. He was unsuccessfully revaccinated on the 13th; date of eruption July 21; he suffered from V. discreta, and recovered. The pre-eruptive stage in him was thirteen days.

Case 7.—S. B., aged twenty, unvaccinated, was admitted to the hospital on August 2, 1878, and was revaccinated the following day, with a fair amount of success. She was not at all taken ill; date of eruption August 13; she suffered from V. discreta, and recovered. In her the pre-eruptive stage was eleven days.

Case 8.—W. D., aged twenty-four, with two indifferent marks, was admitted with measles on January 25, 1879. He was revaccinated; had no premonitories; date of eruption February 7; he suffered from V. varicelloides, and recovered. In him the pre-eruptive stage was thirteen days.

Case 9.—E. W. was admitted on March 6, 1879, suffering from measles; was revaccinated; date of eruption March 16. He suffered from V. discreta, and recovered. The pre-eruptive stage in him was ten days.

Case 10.—A. B., aged nineteen, with three indifferent marks, was admitted on May 21, 1879, and was revaccinated unsuccessfully the following day. She suffered from symptoms of cold and backache on June 1; date of eruption June 3; she suffered from V. discreta, and recovered. In her the period of incubation was eleven days, and the pre-eruptive stage was thirteen days.

Case 11.—Col. R., residing in Chelsea, was first taken ill on May 18, 1878; date of eruption 22nd. His case is that of single exposure, and is given above. His wife was with him during her illness. She was first taken ill on June 4, and had rigor; date of eruption June 7; she was vaccinated when young; she suffered from V. discreta, and recovered. In her the period of incubation was fifteen days, and the pre-eruptive stage was eighteen days.

Cases 12, 13.—H. and W. L., both unvaccinated, aged three years and six months respectively, were admitted to the hospital, suffering from varicella, on February 15, 1879; date of eruption 26th. The younger of the two died. In them the pre-eruptive period was eleven days.

Case 14.—M. S., aged twenty-one, was admitted on February 25, 1880, late in the evening, suffering from measles; she was revaccinated the following morning, and again on March 1, but unfortunately without success. She had two indifferent marks of primary vaccination. The initial stage commenced on March 9, and she had sickness, lassitude, and fever; on the 10th erythema variolosa appeared on her, and papules were seen on the 11th; the eruption was discrete, the rash disappeared, and I formed a favourable prognosis. Sadly enough, two days after she was covered with petechiæ and hæmorrhagic blotches, passed hæmorrhage through various mucous membranes, and died. In her the period of incubation was twelve and a half days, and the initial stage was forty-eight hours.

The history of these cases, divided into three classes—
I. Cases of single definite exposure; II. Cases of prolonged exposure; III. Cases of continuous exposure during the

period of incubation;—clearly shows that the statement that the interval is longer after a single exposure than when the exposure is more continuous, is founded on limited experience, and has no justification at all.

Before concluding this paper, I shall take a passing notice of two questions which are gaining importance every day, the more we study the periods of incubation in acute specific infections disorders. They are the classification of the exanthems according to the lengths of the periods of incubation, and the practical lessons we derive from this study.

Dr. Squire, in the introduction to his paper on the period of infection in epidemic disease, observes that this interval has a duration sufficiently constant to be of generic value in the classification of disease; and, indeed, I do not know of any other mode by which we can classify them. He divides them into two classes, a method followed by Dr. Murchison.

Group I. contains those diseases in which the period extends from one to three weeks.

Group II. contains those in which it is from one to four days, rarely a week. Small-pox is classed in the first group. Dr. Richardson divides them into five classes, and puts small-pox in the fourth group, of what he calls of long duration. He has grouped together various contagious diseases (as syphilis, hydrophobia) which are not infectious, and are reproducible by inoculation only.

The second great question is that of the practical importance of possessing knowledge of the period of incubation.

I. Advantage is taken of this knowledge in the practice of vaccination and revaccination to prevent small-pox. The development of areola in vaccinia takes about seven days. The latent period of small-pox is generally from eleven to thirteen days; therefore immediate vaccination and revaccination would either prevent the disease or modify it.

II. By its knowledge we determine the time of quarantine of those exposed to the infection. In Cases 3 and 4 of Continuous Exposure, we find that the quarantine of sixteen and fourteen days, respectively, was useless. It is usual to put it down as a fortnight in small-pox. To be more certain and warrant safety I would, as in a few cases the period of incubation is prolonged, extend the period to three weeks.

III. It enables us to determine the mode of introduction of the poison.

IV. It enables us to ascertain the origin of an epidemic.

V. It is stated that diseases of short incubation have prolonged convalescence, and remain long as sources of communication; while diseases which show a long incubation give a quicker convalescence and a more rapid freedom from danger as sources of communications.

Taking a survey of the courses of the exanthems, and weighing their various phases in my mind, I think these remarks are full of practical import.

THE LETTER OF THE LAW.—The law in France is that no practitioner of medicine be allowed to sell or supply medicines in a place where a *pharmacien* keeps open shop. In many localities there are very few *pharmaciens*, so that in small places one alone exists without rivals. This is well enough when he is willing and able to execute the duties of his profession; but in the contrary case, has the doctor of the place a right to take upon himself the sale of medicines? A *pharmacien* of a small place named Anneau (*Revue Médicale*, May 27) brought an action against the doctor of the place for having infringed the law. The latter admitted that he had done so, but only because the *pharmacien*, as was proved, utterly neglected his business, kept no proper supply of important drugs, substituted one article for another in dispensing prescriptions, and was frequently absent. The judges, on these facts being proved, exculpated the doctor, declaring that a *pharmacie* so conducted could not be regarded as one at all. When the case was carried to the Court of Appeal this judgment was reversed, for, while admitting the truth of the doctor's defence, the judges declared that the law stated that where a *pharmacien* resided a doctor could not sell medicine, and, as in this case he had infringed the law, the decision must be against him. Admitting, however, the excellence of his motives, he was only fined twenty-five francs, while the damages claimed by the *pharmacien* were refused. They did not decide how the inhabitants of Anneau are in future to be physicked.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

PRIMARY DYSMENORRHOEA—BILATERAL DIVISION OF VAGINAL PORTION—COMPLETE RELIEF FOR AT LEAST NINE MONTHS.

(Under the care of Dr. HERMAN.)

[Reported by Mr. J. B. RUDDUCK, Resident Accoucheur.]

A. H., aged twenty-three, single, telegraphist, was admitted into the London Hospital on September 13, 1876. She gave the following history:—

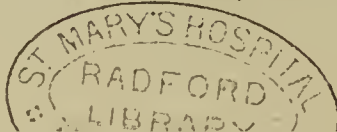
Family.—Mother's mother died from "consumption," and sister suffered much from "neuralgia." Patient's sister died from "water on the brain," aged three; another sister had "St. Vitus's dance" from the age of nine until her menstruation at sixteen. Neither mother nor sister menstruate painfully. Sister suffers from "sick headaches."

Personal.—Had scarlatina when fifteen years of age, after it an abscess in the face, and then St. Vitus's dance; the latter lasted three or four months, the right side being affected, and got well without treatment. Has since occasionally had some discharge from the ear. As long as she can recollect the bowels have been habitually confined, and she has suffered from frequent attacks of pain in the lower part of the abdomen, which often obliged her to lie down. Six years ago she had an illness which was called "inflammation of the bowels"; was in bed six weeks, and ill altogether two months, but had been ailing for a month previously; she was feverish, and had much pain in stomach, which was swollen, and leeches were applied. As a child she was precocious; was very fond of school and of reading, but never cared about being in the open air. She began to have "sick headaches" when about fourteen years of age; these have since been wont to come on about once a month, usually a day or two before the menstrual period, and to last three or four days; the pain was frontal, and accompanied with vertigo and nausea. She first menstruated at fourteen, but was never regular, the discharge appearing once in three or four months, then being copious, and lasting from five to eight days, and attended with great pain; the pain coming on four or five days, and reaching its height the day before the flow. It was felt round the hips and in the lower part of the stomach, worse on the right side. It was described as being "agonising," sharp "like a knife," and paroxysmal, and accompanied with "cold shivers," with severe pain in the breasts, the right the worse, and with "soreness" of the lower abdomen and vulva, and a "bearing down" feeling. Clots were passed, but she had never noticed any pieces of skin. This pain was steadily getting worse. She generally stayed away from business one day on account of it; if she did not, it became necessary to send her home. There was generally slight leucorrhœa before the period.

She was about the middle height, fairly well nourished, and not anæmic. She was intelligent, delicate and refined in appearance. Her manner was very emotional; much trembling and sighing. There were no physical signs of disease in any part of the body other than the pelvis: temperature was normal. An attempt at vaginal examination produced much hysterical shrieking and sobbing; it was, therefore, thought best to examine and at the same time treat the patient under anæsthesia.

September 21.—Patient last menstruated three weeks ago. Previously to that she had gone two months without any sign of menstruation. She has not now any pain or other symptom to indicate its approach. She was examined under ether. The uterus was found in a position of anteversion, movable, of natural size and shape; the cervix long and somewhat conical, the os externum circular. The vaginal portion was divided bilaterally with Küchenmeister's scissors, and a small strip of lint soaked in carbolic oil put into the cervical canal. This was removed the next day.

29th.—No elevation of temperature or other unfavourable symptom followed the operation. To-day menstruation commenced, without pain.



October 5.—Menstruation ceased, having been throughout free from pain. Discharged.

January 10, 1877.—Has menstruated three times since leaving the hospital, each time without pain, the flow lasting three or four days.

She was again seen on January 30, 1879. She was married on August 20, 1877. The menstrual pain began to return about two months before her marriage. Since her marriage she had been quite regular, the flow lasting four or five days, not being profuse, accompanied with much pain, but not nearly so severe as before treatment. The pain comes on three or four days before the flow, and lasts till the second day of the flow; occurs in paroxysms, which last ten or fifteen minutes; is aggravated by exertion. Passes clots, but no pieces of skin. No intermenstrual pain. No other symptoms. Health has much improved since marriage. Is no longer hysterical; has gained flesh. No sign of pregnancy.

Remarks (by Dr. Herman).—Dysmenorrhœa is a subject upon many points connected with which there is much difference of opinion. It is probable that much of this divergence of view arises from there being more than one kind, even of primary dysmenorrhœa, in single women. The distinction between the different forms is only to be made out by the study of cases reported fully and watched for a long time; and as one such this case is published. It is to be noted—1. That the patient inherited and displayed a proneness to nervous disorders, and such an inheritance might be expected to bring with it a greater susceptibility to pain. 2. The primary menstrual pain was associated with irregular, infrequent, but copious menstruation, and with constipation. It is impossible to say whether the attacks described as “inflammation of the bowels” were so or not; they may have been merely colicky pain dependent on the constipation. 3. The dysmenorrhœa was exceedingly severe. 4. Relief followed division of the vaginal portion together with the insertion of a strip of lint into the cervical canal. The immediate object of putting this in was to prevent primary union of the incision, the lint being pushed up the canal as a means of keeping it in position, but it is possible that its dilating effect may have helped in the cure, or even have been the chief agent. It is unfortunate that the size of the os externum was not measured. 5. After nine months’ absence, menstrual pain returned, although with less severity. As the patient was not at this time under observation, it is impossible to say anything as to the nature of this pain, or the reason of its recurrence. 6. The patient, when married, was sterile. 7. There was no flexion.

LATE MENSTRUATION — PRIMARY DYSMENORRHOEA — DIVISION OF VAGINAL PORTION — RELIEF, PROBABLY LASTING FOR AT LEAST FOURTEEN MONTHS.

(Under the care of Dr. HERMAN.)

C. B., aged twenty, servant, single, was admitted into the London Hospital on January 13, 1877.

History.—Family: Father died from consumption. Six brothers and sisters out of eleven died in infancy. Mother menstruated profusely; whether with pain not known. Three sisters married; one, after five years’ marriage, sterile. Characters of menstruation not known. No relative known to suffer from sick headaches.

Personal.—Patient has never been in want. Born in the country, and always lived much in the open air. General servant since the age of ten. Never married. Had what was called “marsh fever” six years ago; was laid up two months; details forgotten. Twelve months ago had four or five “hysterical” seizures: laughed and cried in the fit, and passed water afterwards, but says she lost her senses and bit her tongue. No other previous illness. The catamenia appeared first at eighteen. After menstruating three times at monthly intervals the flow became irregular, occurring once in two, three, or four months; the last three months it has again returned regularly. The hæmorrhage usually lasted from one to two weeks, and was copious; more so at first than subsequently; clots and pieces of skin were passed. It was attended with much pain, so bad as to lay her up; this used to come on a day before the flow, and last till the end, being most severe the first day of the flow; it was constant, not paroxysmal, and was felt across the back, in the right iliac region, and down the inner side of the right thigh to the knee; not in the breasts. During the last three or four months the menstrual

pain has been getting worse, and the pain in the right iliac region has continued throughout the intermenstrual period. The pain was aggravated by exertion, relieved by lying down. For the last twelve months she has had to pass urine more frequently than before; for about the last six months she has suffered from leucorrhœa, variable in amount; she has been losing flesh slightly, appetite has been failing, and she has been troubled with flatulence and nausea in the morning; she has been a little short of breath, and has been getting nervous. Suffers from sick headaches, which come on about once a month—not at a regular time, but generally at or about a menstrual period, and last one or two days; the headache is frontal, and accompanied with nausea.

She was rather below the middle stature (5 ft. 0½ in.), fairly well nourished (weight 8 st. 1 lb.), and not anæmic. The palate was very contracted, and the upper incisors prominent. Fingers thin, joints large. On account of the patient’s sensitiveness, it was thought well to examine and treat her under anæsthesia. This was done on January 19. The uterus was found normal in position, the vaginal portion conical in shape, the external os small and circular; it was unfortunately not measured. The body of the uterus seemed rather small; the sound passed three inches; nothing else abnormal was detected. There were no physical signs of disease in any other part of the body. The vaginal portion was divided bilaterally with Küchenmeister’s scissors, and then the inner end of the incisions slightly enlarged by Simpson’s metrotome, and a strip of lint soaked in carbolic oil put into the cervical canal; this was removed the following day.

January 29.—On January 22 the temperature rose to 100°. Next day it was normal, and has continued so since. There was slight pain across the lower part of the abdomen for two days after the operation, but not since.

February 9.—Began to menstruate yesterday. Slight pain last night, but not so much as formerly; none to-day. Flow scanty. Leaves hospital to-day for the country.

June 11.—Has been regular every month since leaving the hospital. Is now menstruating; there has been slight pain at this period, but none at all at the former ones; quantity the same as before admission. Feels much better in every way. Does not require to pass urine more than about three times daily. No iliac pain. Appetite good; no morning nausea. In answer to a subsequent inquiry as to her health, a letter was received, dated March 27, 1878, which contained the statement that “C. B.’s health is now quite well; she don’t think she needs a doctor at present.”

Remarks (by Dr. Herman).—This case exemplifies the following points:—1. Defective development, shown by small stature, contracted palate, late menstruation, and the body of the uterus being small, although the canal of the organ was of normal length. 2. As in the former case, irregular, infrequent, but copious, menstruation. The patient said she passed “pieces of skin,” but whether these were true membranes or not could not be ascertained. 3. The pain, with lapse of time, increasing in severity and duration, and becoming attended with other pelvic symptoms, irritable bladder, and leucorrhœa. 4. Relief following division of the vaginal portion, together with the insertion of a strip of lint into the cervical canal. The remarks made on this point with reference to the former case apply also here. 5. The duration of the relief obtained.

REMOVAL OF UTERUS FOR CANCER OF CERVIX.—In the *American Jour. of Med. Sciences* for April, 1882, Dr. Cushing reports two cases, one of which was successful and the other fatal, with the following deductions:—1. Do not undertake the operation of entire removal if the surrounding tissues are involved in the disease, or the uterus is at all fixed; for it is then very difficult, and the disease would certainly return at the seat of operation. 2. Operate by the vaginal method, it being much safer. 3. Leave the opening made by the removal unclosed, so as to allow perfect drainage, there being apparently no disposition of the small intestine to prolapse. 4. Keep a self-retaining catheter in the bladder, in order to avoid its distension, and to prevent the too frequent disturbance of the patient. Dr. Cushing suggests that where it can be done, enough of the diseased structure should be removed for a microscopical examination before the decision is made final as to the desirability of the operation. —*Louisville Med. News*, May 27.

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Medical Times and Gazette.

SATURDAY, JUNE 17, 1882.

THE WAYNFLETE PROFESSORSHIP OF
PHYSIOLOGY, OXFORD.

THE brief announcement contained in our last week's issue, that Sir James Paget, Bart., D.C.L., has been appointed to act as an Elector to the Waynflete Professorship of Physiology in the University of Oxford, referred to a matter, the importance of which in relation to the future teaching of medical science in that University it would be difficult to exaggerate. The statutes made by the University of Oxford Commissioners, under the Universities of Oxford and Cambridge Act, 1877, provide for the establishment of certain new professorships, one of which is a "Waynflete Professorship of Physiology." The holder of this chair is to teach Physiology, pure and simple; and this, we presume, must mean chiefly Human Physiology. One of the intentions of the new statutes is to provide that the course of instruction given in the University shall be organised so as to completely prepare men for the First M.B. Examination in Anatomy and Physiology, as well as in the Preliminary Sciences. And with this view, they provide that "the Professorship heretofore designated the Linacre Professorship of Physiology shall hereafter be designated the Linacre Professorship of Human and Comparative Anatomy"; there is a Waynflete Professor of Chemistry, whose duty is to lecture and give instruction on Theoretical and Practical Chemistry; a Waynflete Professorship of Mineralogy; the Professorship of Botany is to be separated from the Sibthorpian Professorship of Rural Economy on the next vacancy, its emolument is to be increased, and a Fellowship in Magdalen College is to be attached to it; and provision is made for the establishment of an additional Professorship of Physics, the holder of which is to lecture and give instruction on some part or parts of Experimental Philosophy. The statutes deal also with the duties and emoluments of the Lee's Reader in Anatomy. They further require that the Regius Professor of Medicine shall deliver each year at least two

courses of lectures on subjects connected with the study of Medicine, and shall perform such other duties in relation to the teaching and study of Medicine in the University as the University may from time to time by statute determine; and funds are set aside "to be applied in or towards providing clinical instruction in Oxford for members of the University, such instruction to be given by a Clinical Professor, or by one or more Clinical Lecturer or Lecturers." It will be abundantly clear that if all these appointments are judiciously and well filled there will be ere long a real and flourishing Medical School in the University of Oxford—a school in which the medical student may with the greatest advantage and profit spend the first two years at least of his professional education. And no other appointment in this scheme, if we may so call it, is of such paramount importance as that of the Professor of Physiology. The Chair is one which really good men—men of the type and intellectual gifts of the Lecturer on Practical Physiology in the University of Cambridge—may well desire to occupy. A Fellowship of Magdalen College will be attached to the Professorship, and that by itself must be no small attraction; and in addition to the emoluments of the Fellowship—some £200 a year, we believe—the sum of £600 a year will be paid to the Professor out of the revenues of the College. Particular regulations concerning the duties of the Professor are formulated. He is to reside within the University during six months at least in each academical year, between the first day of September and the ensuing first day of July. He is to lecture in two at least of the three University terms; and his lectures are to extend over a period not less in any term than six weeks, and not less in the whole than fourteen weeks, and he is to lecture twice at least in each week. These regulations mean real work, but they certainly are not onerous; they represent the least that the Professor shall be required to do, and the very least that the right sort of man will be content to do, and to do thoroughly and well. The Professor should be a large-minded enthusiast, an able teacher, a thorough believer in the importance of his work, of intellectual force enough to impress the University with the importance of it, and of such general character and culture as will make him acceptable to, and a power in University society. He will need a fitting laboratory and library for teaching and practical work, and the right man will, we believe, find no great difficulty to obtaining the necessary funds to supply these wants. Instruction in pure Physiology had already been given in the laboratory of Magdalen College (open to members of other colleges also) by Mr. Yule; and the President and Fellows of the College have shown an admirable spirit in providing with the greatest promptitude for the endowment of the new Chair of Physiology. The new statutes became law only at the commencement of May last, and though it was questionable whether the state of the revenues of the College would admit of the full endowment of the chair at once, arrangements have been made for meeting the emergency. If the right kind of man be chosen to fill the chair, any other difficulties in making it fully useful will, we doubt not, be also got over. And the constitution of the Board of Electors to the Professorship gives every reason to expect that the best possible choice will be made. The Board consists of seven men—of the Visitor and the President of Magdalen College, and of five men of mark and position who may be called experts, viz., the Regius Professor of Medicine, the Linacre Professor of Human and Comparative Anatomy, the President of the College of Physicians, the President of the College of Surgeons, and, on the present occasion, Sir James Paget. Only let the most fit man possible be elected, and the appointment will be an epoch-making one in the history of the Medical School of the University of Oxford.

GERMAN VIEWS ON BRIGHT'S DISEASE.

It has been a matter of some surprise to us that the very important meeting of the German Medical Congress at Wiesbaden, to which allusion has already been made in these columns, has attracted so little attention, both in this country and abroad. Yet the subjects discussed were of the first importance, and the men who took part in them were among the foremost of the day. We have waited in vain for any detailed account of this meeting and of the various discussions, but none has come to hand, and we are reluctantly compelled to fall back on the rather meagre abstracts published in some of the foreign journals, for the accuracy of which we cannot vouch. Nevertheless, we venture to lay before our readers some account of the discussion on the Pathology of Bright's Disease as it is recorded in the *Wiener Medizinische Wochenschrift*, since the facts and opinions recorded there will be new to many, and will furnish the means of forming some sort of comparison between the views prevalent in Germany and with us. In this country we cannot boast of great uniformity in nomenclature, though probably the morbid conditions differently named are the same. Thus, Dr. George Johnson has his desquamative and his non-desquamative nephritis, Dickinson his acute and chronic tubal inflammation and his granular degeneration, Grainger Stewart his inflammatory and cirrhotic forms of the disease. Amyloid change may be put on one side. In Germany the system of Reinhardt and Frerichs has been generally adopted, though not by Bartels. According to this, there is but one form of Bright's disease, an inflammation of the tubes, presenting three stages—acute hyperæmia with transudation, modification of transudative into fatty material, and absorption of this with shrinking. This basis was still adopted, though with material modifications, at the Congress.

The mode of business adopted there was somewhat similar to ours; only two members were selected to introduce the subject, instead, as most frequently is the case with us, one only. On the occasion referred to, two most distinguished authorities were appointed to this duty—namely, Leyden of Berlin, and Rosenstein of Leyden. The former, after separating from the inflammatory forms of Bright's disease such maladies as passive congestion of the kidney, amyloid kidney, and Gull and Sutton's general arterial sclerosis, proceeded to say that nephritis, strictly so called, presented only one type (for the parenchymatous and interstitial did not differ in principle), but many forms, which might be distinguished clinically as to the etiology, prognosis, and treatment. He took as his type of nephritis the acute or infective form, which sometimes occurs spontaneously, but most commonly in connexion with infectious disorders, and presenting, on the whole, similar characters, but many important variations. This infective form of nephritis follows the three-stage course, through fatty degeneration to the pale contracted kidney. The red contracted kidney (genuine or sclerotic), on the other hand, he held to be dependent on sclerosis of the vessels of the organ. Rosenstein likewise protested against the artificial system of Bartels, which is practically our own. There is, said he, no pure interstitial and no pure parenchymatous nephritis, only a diffuse form of inflammation. But I only speak of Bright's disease when there are distinct inflammatory changes. Dropsy has nothing to do with it, and may be absent in either the acute or chronic forms; but I strongly distinguish between parenchymatous degenerations and inflammations—the last alone, whether acute or chronic, constitute Bright's disease. The division into stages I take *cum grano salis*. Undoubtedly there are cases where they can be followed, but in most the development of contraction

following acute nephritis can neither be made out at the bedside nor at the post-mortem table. A development of granular atrophy from what I call the smooth contracted kidney can often, but not always, be made out. In many cases the large kidney remains for years the large kidney, whilst the small kidney from the first shows a tendency to inflammatory shrinking, both giving alike the clinical indications of contraction. Here we have the same kind of thing as in the hypertrophic and atrophic cirrhosis of the liver. Further, I hold it false to refer the white granular contraction and the red to different stages of one and the same process. They both present the same clinical features, but this I well know, that the small red kidney has its origin in sclerosis of the vessels. Any attempt to distinguish the various causes of the various forms would be impossible even if it were of any use. Acute nephritis has undoubtedly an infective origin, but I am aware of no facts which entitle us to assume that parasites are the cause of it in scarlet fever, typhus, or intermittent. In the chronic form the effects of lead-poisoning may have some influence, though I have not been able to produce albuminuria by its means; and the statement that so-and-so many sufferers from Bright's disease had suffered from lead-poisoning is of no value; rather it should be, how many people poisoned with lead had Bright's disease.

Aufrecht, founding his views more especially on his well-known experiments by tying the ureters, held that there were three different forms of kidney mischief giving rise to the symptoms of Bright's disease—1. Primary parenchymatous nephritis. 2. Amyloid nephritis, wherein certain changes begin in the glomerular capillaries, and are followed by epithelial changes and an overgrowth of the interstitial tissue. 3. Glomerulo-nephritis, which in the chronic form gives rise to the contracted kidney.

Rindfleisch maintained that recent experimental researches only confirmed the value of Virchow's views enunciated fifty years ago. His description of a parenchymatous nephritis, with swelling, fatty degeneration, and subsequent collapse of the cortical substance, was as true as ever of an acute nephritis, and this might end in the so-called genuine contracted kidney. Glomerulo-nephritis had alone to be added as the complement of this view. On the other hand, Virchow's views had received a notable extension in the recognition of an interstitial infiltration with white blood-corpuscles, sometimes materially modifying the characters of the diseased organ, as in the broad (large) white kidney. By the co-existence of these arise various mixed forms, as the white contracted kidney, the spotted or mottled kidney, etc. A true contracted kidney could scarcely arise without a new growth of connective tissue. He knew nothing of a general arterio-capillary fibrosis in the sense adopted by Gull and Sutton.

Rühle thought that the facts of pathological anatomy could not yet be placed quite in accord with clinical research, but, roughly speaking, diffuse disease of the cortex of the kidney might be grouped under three heads, anatomically speaking. These were the large red, the large white, and the granular kidney. The first form finds its typical representative in the kidney of scarlet fever, which quickly passes away, for the most part satisfactorily, but sometimes ends in death by uræmia or acute dropsy. The second form may originate acutely, though it seldom ends so. Dropsy is its most notable symptom; with it the disease may be said to begin, and with it ends either in an acute exacerbation or by gradual disappearance. The third form is the contracted kidney of Bartels. Of the accompanying symptoms—cardiac hypertrophy, nervous manifestations, interference with sight, breathing, and

digestion: all probably uræmic symptoms—dropsy is most frequently absent.

Immermann, Klebs, and Ewald also took part in the debate.

Leyden, summing up in reply, declared—1. That the classification of the various forms of Bright's disease, from an anatomico-pathological point of view, was not enough to give an exact picture; clinical details as to etiology, symptomatology, course and termination, were necessary.

2. That the exact determination of what was Bright's disease, and what not, was not the main question. Though Bright himself described the malady as nephritis, all the conditions, it was now well known, were not inflammatory, such as amyloid degeneration, the kidney of pregnancy, and the grey sclerotic contraction showed.

3. There was a unity in nephritis, inasmuch as no essential difference existed between parenchymatous and interstitial nephritis; and all forms of nephritis presented a certain uniformity of type. But with this general uniformity there existed so many variations as to symptoms, course, and even anatomical conditions, that for practical convenience certain subdivisions must be recognised.

4. That the typical forms of nephritis passed through the three stages, he had no doubt; whilst contraction of the kidney undoubtedly followed the nephritis of scarlatina, articular rheumatism, intermittent and typhoid.

5. So too he held that there was an un-inflammatory form of contracted kidney common in old age, coupled with arterial sclerosis.

6. Finally, he believed that lead-poisoning undoubtedly caused a contraction of the kidney, which was of the red kind, and associated with disease of the arteries.

Rosenstein pointed out the differences between his standpoint and that of Leyden. He did not think that any complete picture of the disease could be procured from clinical details alone: pathological anatomy must be combined with them. The existence of Gull and Sutton's capillary fibrosis might be said to play no part in the etiology of the disease. Hypertrophy of the muscular layer of the vessels is the most common change, and that is purely secondary.

We regret exceedingly that this brief abstract of what was evidently a most interesting and most important discussion should be so imperfect; but we must wait further details.

PONFICK ON ACTINOMYCOSIS HOMINIS—A NEW INFECTIVE DISEASE.(a)

THE dangers that the human species are exposed to from diseases in the domestic animals are often estimated in the vaguest way, and they are, indeed, to a great extent incapable of accurate statement or of positive proof. To take a conspicuous example, the risk of infection to human beings from the too common tuberculosis of the cow is variously rated at much, or at little, or at nothing at all, according to various caprices of judgment in the minds of individuals, and not according to any evidence that possesses scientific value. And it is not to be expected that the Legislature or the Executive will seriously turn their attention to the very considerable amount of tuberculosis among cows in all parts of the country, until the risk to human beings is demonstrated by some better kind of evidence than the fears of one, or the intuitions of another, or the confident assertions of a third. There are, however, two or three diseases in man of comparatively rare occurrence, which are with good reason attributed to infection from the domestic animals,

although the particular act or acts of infection are not always discoverable. Glanders and rabies belong to that class, and Professor Ponfick has just added another—the disease called actinomycosis.

Fistulous apertures in the skin of the neck and back, with livid, thin, or undermined edges, leading to an extensive labyrinth of sinuses in the subcutaneous and muscular tissues, which in turn communicate with centres of chronic suppuration or of phlegmon in front of the vertebræ at one part of the spine or another—such are the most distinctive superficial characters of actinomycosis hominis as observed in eight fatal cases, as well as in a few cases that recovered. Several of those characters are especially noteworthy: the sinuses burrow in all directions without becoming fused by breakdown of intervening tissue; the granulations that line them are pale and flabby; the discharge from them is scanty and more serous than purulent; the openings in the skin are irregular, and the edges thin and undermined. The region of disease may be in the face (in most of the non-fatal cases), in the neck, in the middle of the back inclining to the left side, or in the loins; and in the last mentioned cases the sinuses may extend along the psoas and open in the groin. In several of the fatal cases there were found evidences of metastasis in the heart, in the lungs, and in the spleen. The fatal termination, which is extremely apt to occur, is usually by way of exhaustion, and is led up to by pleuritic, pneumonic, or peritonitic affections. What is there in these cases of chronic pre-vertebral phlegmon and burrowing in the skin to point to a communication of disease from the ox? Not only is there no direct communication of disease traceable from the ox in particular cases, but neither is there any disease of the ox characterised by such tunnellings of the skin and muscles and by such pre-vertebral centres of phlegmon. It is instructive to mark the evidence of identity that is relied upon—and justly relied upon—in this newest form of bovine infection.

The serous discharge, which can be expressed with difficulty from the sinuses in the human subject, contains a good many small round bodies like millet-seeds, sulphur-yellow in colour, and fatty in consistence. When Professor Ponfick first saw them in the sinuses of the back in a subject which he examined at Breslau, three years ago, he at once identified them, without even resorting to his microscope, with the yellow fungus-conglomerates which Bollinger (in 1877) had found to be invariably present in a certain disease of the ox. Each yellow seed-like body is made up, like a head of cauliflower, of a number of smaller divisions, and each of the elementary bodies consists of a minute tuft, of mycelium, whose somewhat thick threads have a radiate arrangement, the mycelium-tuft resembling (under the microscope) the centre of an aster or of a sunflower. The radiate arrangement was so distinctive of the fungus that Bollinger gave it the name of *actinomyces*, the disease of the ox in which those fungus-conglomerates occurred became *actinomycosis*, and the cases in which they occurred in man became cases of *actinomycosis hominis*. The disease in the ox is a tumour-disease of the jaws, almost always of the lower jaw. At the angle of the jaw an extensive fleshy mass protrudes, having broken through the skin. These growths are true tumours, in so far as they are often removed by the knife in veterinary practice. The substance is sarcomatous, greyish-yellow in colour, medullary in consistence in many places, but firm and bacon-like in other parts. When the jaw is sawn through (or macerated), the new growth is found to have invaded the osseous structure extensively; it occupies the spongy tissue of the interior, and it may project into the cavity of the mouth. Its encroaching and destroying tendency is precisely that of a malignant new growth. Curiously enough, it appears to stand in a certain close and exact

(a) "Die Actinomykose des Menschen, eine neue Infektionskrankheit," von Dr. E. Ponfick, Professor in Breslau. With six plates, pp. 232. Berlin, 1882.

relation to the row of molar teeth; it may extend along the jaw for the whole length of the molar region, but it never appears in the gap which separates the molars from the incisors. Its exact relation to the sockets of the teeth is not yet determined. The whole fleshy mass of the tumour consists of two kinds of tissue—the one, whitish bands or tracts of close fibrous texture; and the other, softer areas of greyish-yellow colour, alternating with the firm tracts. In each of the soft or pulpy spots there occurred a basis of large round cells and a number of opaque points. These opaque points are the yellow seed-like bodies discovered by Bollinger, the conglomerates of the radiate fungus *actinomyces*. They are always found throughout the pulpy parts of the tumour, lying amidst a thick creamy substance; but they have not been found in the alveoli of the teeth. Their association with the tumour is undoubted, but it does not yet appear what causal relation they have to the tumour-structure, which is, and has long been known as, a sarcoma of the jaw.

The one point that connects this disease with cases of illness in man is the presence in both of the yellow seed-like bodies, the remarkable radiated tufts of mycelium. The maxillary tumours of the ox are almost exclusively local. In only a few of the cases in man—those that recovered—was the disease traced to the mouth and teeth, and even in those cases it does not appear to have assumed the form of a tumour. In none of the fatal cases could any connexion with the alveolar process of the jaw be made out. In several of the fatal cases, however, there were whitish metastases in the spleen and in the heart, and these contained the radiate fungus. Professor Ponfick does not ignore the difficulty of explaining the relation of the fungus to the maxillary sarcoma, and of explaining the conveyance of the fungus to man. On the latter point, he thinks it probable that the spores may enter at any broken surface of the skin, and he refers to one of his cases in which the phlegmonous inflammation began three years before in a wound of the thumb, and slowly extended up the arm to the neck. Experiments to convey the disease to dogs and rabbits failed both when the tumour-substance was used, and also when the seed-like bodies of the fungus were used alone. But small portions of the tumour, introduced into the peritoneal cavity of the calf, were found to have attached themselves at various places, and to have increased in size. The pathology of actinomycosis is only beginning; and, as the fungus is a large one, and free from all ambiguity, we may look for interesting and reliable conclusions about the relation of fungi to internal diseases.

The veterinary pathology of the disease has received a somewhat remarkable contribution within the last few weeks. Professor Pflug, of Giessen (*Centralblatt*, April 8) showed before the medical society of that town, on March 14, the lungs of a five-year-old cow which were occupied with countless small miliary or sub-miliary tubercles, grey and translucent, and in no respect differing in external appearance from ordinary miliary tubercles. Under the microscope, however, there were seen, not in all of them, but in many of them, and almost always exactly in their centre, certain greenish-yellow spherical bodies, marked by radial stripes expanded at the peripheral end. Under a higher power it was clearly seen that these stellate bodies were the fungus *Actinomyces bovis*, but they nowhere occurred in the conglomerate seed-like masses characteristic of the maxillary tumours. There was never more than one radiated tuft in a tubercle; in many tubercles there were only four or five radially arranged mycelium threads, that might easily have been overlooked, and in many tubercles there was no trace of the fungus. The tubercular structure which enclosed the fungus consisted of round cells, with an outer zone of concentric tracts of fibrous tissue infiltrated with cells. The

tubercles without the fungus had the same structure as those in which it was present, the round cells in the centre being in somewhat looser order. There occurred larger tubercles, made up either by the aggregation of several smaller, or by the wide extension of the small-celled infiltrations round about the tubercle-centres. The animal from which these lungs were taken appears to have had no other organs diseased, and had been ailing for four weeks. Professor Pflug thinks that the disease, on account of which the animal was killed, may be described as actinomycosis of the lung in the form of acute miliary tuberculosis. We shall be better able to estimate the importance of the discovery when a larger number of cases have been collected.

THE DEBATE ON SCLEROTOMY AT THE OPHTHALMOLOGICAL SOCIETY.

GLAUCOMA is likely to present for some time to come many points of great importance for examination and discussion. The recent very full debate upon sclerotomy at the Ophthalmological Society shows that the last word is yet far from having been said on the narrow question of what operation in various circumstances is best adapted to relieve increased tension of the eyeball. Though no decided conclusion was arrived at upon the merits and demerits of sclerotomy, the ventilation of the subject and the publication of the large amount of British experience brought forward, will doubtless help much towards a more precise definition than appears hitherto to have been arrived at, of the forms and stages of glaucoma for which this operation is to be preferred to the easier and safer one of iridectomy. Although it was evident enough that operators differ considerably as to the precise details of the operation to which they give the name of sclerotomy, we cannot help thinking that the absence of accurate, uniform, and extended statistics of cases operated upon has hitherto had more to do with the want of definite opinions, than any differences in the methods of operating. The great majority of speakers stated their preference for De Wecker's operation, in which more or less of the central part of the scleral arc is left undivided; and there seems no reason to doubt that this procedure will hold its ground. The experience recorded in the discussion showed that sclerotomy had given good results in some examples of nearly every form of glaucoma, but the general sense of the meeting was evidently in favour of employing it chiefly for cases in which it is known that iridectomy often fails—as in simple chronic glaucoma, glaucoma with intra-ocular hæmorrhage, and glaucoma in young subjects; where iridectomy has been already performed without arresting the disease; and as an alternative to excision of the globe in eyes permanently blind from glaucoma, but still subject to pain. The theory now generally held—that the cure of glaucoma, at any rate in its more chronic forms, requires the formation of a scleral scar communicating with the anterior chamber, and more permeable than the intact sclerotic of the glaucomatous eye—received a large amount of support. Mr. Critchett, Mr. Lawson, and Mr. Carter spoke from experience of the value of sclerotomy in glaucoma following extraction of cataract, and in the glaucomatous stage of sympathetic ophthalmitis—two groups in which we should not, on theoretical grounds, have expected the operation to succeed. Further trials of sclerotomy in these cases may, if successful, throw light on the mode of action of the operation in the other forms of glaucoma.

THE WEEK.

TOPICS OF THE DAY.

THE members of the Metropolitan Asylums Board recently paid their annual visit to the Imbecile Asylums at Darent,

and amongst the visitors were Dr. Thorne Thorne, of the Local Government Board, Admiral Robertson, Dr. Fowler, Mr. Barringer, etc. Sir Edmund Hay Currie, the chairman of the Darenth Committee of Management, received the visitors, and conducted them through the different buildings, accompanied by Dr. Fletcher Beach, the Medical Superintendent of the children's asylum, and Dr. Dyer, who has charge of the adult portion of the establishment. At the time of the visit the children's asylum contained 477 patients of various degrees of imbecility, some being altogether helpless, whilst many are capable of being instructed, to their great advantage and improvement, in tailoring, shoemaking, and other trades, according to the system so happily commenced some time since by Miss Stephens, formerly of the Earlswood Asylum for Idiots. The statistics of this branch of the establishment show that the treatment adopted is successful in "curing" between 3 and 6 per cent. of the inmates, whilst the careful administration of the institution is evidenced by the fact that, according to the last report rendered, the mortality was only at the rate of 5.66 on the average numbers resident. The inspection further showed that in the wards for the adults every provision which skilled medical experts could suggest had been secured, and the nurses provided were of a superior class, to insure the kindly treatment of the harmless chronic imbeciles committed to the charge of the managers by the special legislative enactment of 1867. At the conclusion of a lengthened examination of the Asylums, the visitors expressed their complete satisfaction with the manner in which these establishments are conducted by the Committee to whose charge they are confided.

At the last meeting of the City Commission of Sewers, Dr. Sedgwick Saunders, the Medical Officer of Health, reported that during the previous fortnight 631 houses had been inspected, of which number eighteen required sanitary improvement in various particulars. He also called special attention to the frightful state of certain houses in Robin Hood-court, Shoe-lane, adjacent to the back entrance to the casual wards of the City of London Union. In this locality there had been, he said, an outbreak of diphtheria and fever, both among the inhabitants and the casuals admitted to the wards, and children had died from blood-poisoning. The leaseholder was said to be the sanitary inspector of a neighbouring district. In the seven houses in this court there were sixty rooms, occupied by 200 persons. He strongly recommended that steps should be taken either to improve the premises or to have them demolished, and suggested that the Board of Guardians might to some extent provide a remedy by disusing the back entrance to their premises, or by providing other shelter for their casuals. He recommended further that, in view of the coming summer, all the courts and alleys of the City should be cleansed and lime-washed, and regularly flushed from time to time. During the previous fortnight 28 births and 26 deaths had been registered in the City; the birth-rate was 13.17, and the death-rate 14.69 per 1000 per annum.

Attention was recently called in the House of Commons to the number of dead bodies which had, about that time, been found in the river Thames, and a return was moved for, which has just been made public. From this document it appears that in the five years, 1877-81, 68 bodies (60 male and 8 female) were found in the Thames within the precincts of the City of London district; and 1818 (1270 male and 548 female) in the Metropolitan Police district. With regard to the City, 16 bodies were discovered in 1877, 10 in 1878, 18 in 1879, 14 in 1880, and 10 in 1881; and in the Metropolitan district 239 in 1877, 875 in 1878, 217 in 1879, 209 in 1880, and 277 in 1881. Of the total number found in the City

district, the results of coroners' inquests were 25 verdicts of accidental death, 2 of wilful murder, and 9 of suicide, whilst in 32 cases no opinion was expressed as to the cause of death. Of the cases in the Metropolitan district 1084 verdicts of accidental death were returned, 8 of wilful murder, and 112 of suicide, while in 599 cases an open verdict was given. In the remainder no inquest was thought requisite. The unusually large number of bodies discovered in 1878 is accounted for by the fact that those drowned through the wreck of the *Princess Alice* steamer are included.

An inquest was recently held at Poplar by Sir John Humphreys, Coroner for East Middlesex, on the bodies of a male and a female child, whose deaths, it was alleged, were caused through improper treatment on the part of an unqualified medical practitioner, commonly known throughout the East-end of London as the "Black Doctor." The inquiry afforded fresh evidence of the extent and great evil of the "dispensary" system as carried on in many parts of the metropolis—an evil which will never be lessened by mere censure, however severe, by coroners' juries. The evidence showed that a medical man, stated to be duly qualified and registered, was the proprietor of a number of dispensaries in different localities in the East-end of London, at one of which a "half-caste," calling himself "Colonel Griffen," acted as assistant and prescribed for patients. In the course of the inquiry this person admitted that he was not a qualified surgeon, and had no diploma in England nor in any other place; he had, however, "studied medicine," and in the country to which he belonged he was a barrister. This colonel, barrister, and amateur doctor was, moreover, in the habit of signing death-certificates in the name of the practitioner with whom or for whom he worked, and he declared that until the present case occurred he had no idea that he was acting illegally. After considering their verdict in private, the jury found that the deceased died from natural causes, but they severely censured the qualified practitioner for allowing "Colonel Griffen" and other unqualified persons to practise in his dispensaries. This appears to be one of the cases in which the Registrar-General might effectively intervene and prosecute for the illegal filling-up of death certificates. The chief offenders in these cases are not, however, the unqualified assistants, but the qualified practitioners, who make a profit out of medical "business" carried on in their names by wholly unqualified servants of theirs. Dispensaries carried on in this way are a scandal and disgrace to the profession, and a mockery and a danger to the public.

The annual meeting of the Metropolitan Provident Dispensaries Company (Limited) was recently held at the offices of the Company, the Chairman, Sir Charles Trevelyan, presiding. At first sight it is not clear whether this Company is a charitable or a commercial undertaking; for in the prospectus issued it is stated that, although the primary motive is to provide for the ordinary medical treatment of the working-classes, at or in the immediate neighbourhood of their own homes, it is believed that, by an economical administration of the affairs of the Company, a reasonable dividend may be paid to the shareholders from the rent which will be obtained from the managing committees of the dispensaries, and the directors see no reason to doubt that this result will in due time be attained. Up to the present time 5412 shares of £1 each have been taken up; but the report says, as there are many expenses connected with the progress of this movement, which are in no respect of a commercial character, and cannot, therefore, be charged either to the Company or to the dispensaries, a fund has been opened for donations in aid of the preliminary expenses of the Association, to which about £700 has already been subscribed. It

will be interesting to watch what will be the ultimate result of this curiously hybrid undertaking. The really charitable have, as a rule, a strong objection to investing money in a charity or a quasi-charity with a view to a possible pecuniary gain. A mixture of charity and money-profit has no charms for them, and as a simple speculation the advantages held out by the Metropolitan Provident Dispensaries Company are not likely to attract those who look to obtain some certain return for capital invested.

The fourth annual meeting of the Home Hospitals Association was held on Saturday last at the rooms of the Social Science Association; Mr. Walter, M.P., in the chair. The report for the past year stated that at Fitzroy House, Fitzroy-square, upwards of twenty patients each month had been refused admission for want of room. During the year there were 452 applications for admission, of which number only 122 could be received, their average stay having been twenty days; 49 of the leading consulting practitioners in London had had patients in Fitzroy House, and all had expressed themselves satisfied and pleased with the completeness of the arrangements. After payment of the maintenance and other charges for the year, there remained a sum of £220, equal to 3 per cent. on £6589, the amount of the capital employed. The report went on to say that the necessity for extending the Hospital has become pressing, and that the next house could be acquired if funds were forthcoming, and if it were desired now to provide accommodation for a class who could pay something for treatment when ill, though not so much as is required by the scale of charges at Fitzroy House. Various suggestions had been made as to the course to be adopted to make the Association self-extending, but the report represented the difficulties in the way of making the Association a "limited company" as insurmountable. The Committee suggested that £5000 should be raised by donations from the upper and middle classes, who were benefited by the work, and pointed out that, thus provided, the Association would be enabled to carry out gradually the work it had undertaken. The Chairman, in moving the adoption of the report, congratulated the Association on the success of their efforts; the great objects of a home hospital should be, he thought, to combine the best medical and nursing attendance with the comfort of a private house, and so far these seemed to have been attained. Mr. Burdett moved that certain alterations, recommended by counsel, should be made in the articles of the Association; and explained that if an additional £5000 could be obtained for the extension of the Hospital by purchasing and fitting up the next house, it would enable them to appoint a resident medical officer, and the additional patients would be admitted at a lower weekly fee than that now paid by the patients in Fitzroy House. Before the close of the meeting the Chairman announced his intention of subscribing £100, and the Earl of Dartmouth fifty guineas, towards raising the additional £5000 required to extend the usefulness of the Association.

HOSPITAL SUNDAY COLLECTIONS.

LAST Sunday being the day appointed for making the Hospital Sunday collection, a larger number of congregations than usual, it is said, contributed towards this object. Amongst the different sums already paid in at the Mansion House are the following:—St. Michael's, Chester-square, £691; St. Paul's Cathedral, £298; Westminster Abbey, £228; "Delta," £100; St. Peter's, Vere-street, £116; St. Mary, Boltons, £58; St. John the Evangelist, Wilton-road, £93; City Temple, £120; "M. T.," £100; All Saints, Blackheath, £82; St. John's, Forest-hill, £68; St. John the Evangelist, Penge, £98; St. Matthew's, Denmark-hill, £63;

St. James's, Westminster, £145; St. Paul's, West Brixton, £58; St. Paul's, Forest-hill, £51; All-Hallows the Great and Less, £60; St. Peter's, Bayswater, £92; Holy Trinity, Lee, £80; St. Barnabas, Kensington, £95; "J. H.," £50; Islington Presbyterian Church, £53; Holy Trinity, Kilburn, £70; St. Paul's, Westbourne-grove, £46; St. James's, Camberwell, £35; St. Peter's, Streatham, £33; St. Luke's, Holloway, £60; St. Mark's, North Audley-street, £193; St. Matthew's, Upper Clapton, £74; Clapham Parish Church, £69; Lewisham Congregational Church, £64; St. Michael's, Cornhill, £43; Downs Chapel, Clapton, £51; St. Bartholomew's, Sydenham, £105; Holy Trinity, Marylebone, £101; Carmelite Church, Kensington, £48; Hampstead Parish Church, £40; St. Jude's, Dulwich-road, £42; St. Ann's, Soho, £185; Berkeley Chapel, Mayfair, £122; St. Paul's, Camden-square, £54; Blackheath Congregational Church, £72; St. Luke's, Redcliffe-square, £45; St. Jude's, South Kensington, £503; Brompton Church, £230; St. Peter's, Cranley-gardens, £201; the Metropolitan Tabernacle, £200; St. Andrew's, Wells-street, £231; St. Nicholas's, Chislehurst, £147; Union Chapel, Islington, £147; St. John's, Paddington, £125; Portman Chapel, Baker-street, £154; St. Stephen's, South Dulwich, £182; St. Margaret's, Westminster, £185; "F.," £50; St. Mark's, Dalston, £85; St. Peter's, Dulwich, £140; St. Mary Magdalene's, Paddington, £34; St. Mary's, West Kensington, £91; Clapton-park Congregational Chapel, £48; Christ Church, Highbury, £73; Greek Church, Moscow-road, £105; St. Margaret's, Lee, £100; The Oratory, South Kensington, £40; St. Thomas's, Portman-square, £152; Brixton Unitarian Church, £47. The total received at the Mansion House amounted on Wednesday evening to £14,000.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT the ordinary meeting of the Council of the Royal College of Surgeons, held on Thursday, June 8, when the minutes of the previous Council of May 11 had been read, it was moved that the portion of them relating to the referring of candidates rejected at the Pass Examination for the Membership to their studies for nine or twelve months be not confirmed. A prolonged discussion arose on the motion, but eventually it was lost by thirteen votes to seven, and the minutes were confirmed as they stood. Mr. Marshall moved that the attention of the authorities of the various medical schools be called to the resolution recently passed by the Council on the establishment of an examination in Elementary Anatomy and Physiology at the end of the first year of medical studentship, and that they be invited to confer with the joint-committee of the College with the object of considering the best method of carrying the resolution of the Council into effect. Reports were received from the Court and the Board of Examiners, and from other committees. The report of the Vice-Presidents (the President having been unable to take part in considering the subject) on the letter from the Home Secretary asking whether the Council of the College had any suggestions to make for the amendment of the law relating to the sale of poisons, was presented. The Vice-Presidents stated that they had carefully considered the Act relating to the sale of poisons, and amending the Pharmacy Act of 1852, and had conferred with the Council of the Pharmaceutical Society on the subject, and they submitted to the Council of the College the following suggestions in reply to the Secretary of State's letter—"That it is neither necessary nor practicable that any further restrictions should be placed on the sale of medicines containing poisons dispensed from ordinary prescriptions by legally qualified medical practitioners; that there should be greater restrictions placed on the sale by wholesale of certain virulent poisons, such as strychnine,

aconitine, and all poisonous vegetable alkaloids, and their salts; that further restrictions should be provided by law, so as more efficiently to control the sale of poisonous patent medicines. And that the power which the Act confers on the Pharmaceutical Society to make, with the consent of the Privy Council, any additions to or alterations in Schedule (A) is a wholesome provision, and a sufficient guarantee that, from time to time, further changes will be effected in that schedule as new poisons are introduced into common use."

The report was adopted by the Council.

The recommendation of the Nomination Committee, that in future all candidates for the Primary or Anatomical and Physiological Examination, whether for the Membership or Fellowship of the College, be required to attend only one winter course of lectures on Anatomy, instead of two courses of such lectures, was carried.

Drs. Bristowe, Dickinson, Gee, and F. T. Roberts were reappointed Examiners in Medicine; and Drs. John Williams and G. E. Herman were reappointed Examiners in Midwifery. Mr. Power was nominated for the Arris and Gale Lectureship on Anatomy and Physiology. The other Professors, namely, Messrs. Hutchinson, Flower, and Parker, were nominated for reappointment to their respective chairs.

The following Members of the College having been elected Fellows at previous meetings of the Council, were admitted as such on the 8th inst., viz.—Messrs. Thomas Edwardes, L.S.A., Llansaintffraid, Oswestry, diploma of membership dated May 8, 1835; and Alexander Hawkins, J.P., M.D. King's College, Aberdeen, College-square North, Belfast, June 26, 1840.

The time having elapsed for nominating candidates for seats in the Council, the Fellows will soon receive official intimation that, in addition to the three retiring members of the Council, Messrs. Baker, Marshall, and Power, who offer themselves for re-election, there will be, taking them in seniority, the following:—1. Mr. George Lawson, of the Middlesex Hospital—Member, August 9, 1852; Fellow, December 17, 1857. Mr. John Croft, of St. Thomas's Hospital—Member, October 6, 1854; Fellow, November 24, 1859; and Mr. N. C. Macnamara, of the Westminster Hospital—Member, April 17, 1854; Fellow, June 10, 1875. The election will take place on Thursday, the 6th proximo, at the College.

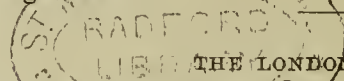
THE PHARMACEUTICAL SOCIETY.

At the last meeting of the Council of the Pharmaceutical Society of Great Britain, Mr. M. Carteighe was elected President for the ensuing year. In honouring Mr. Carteighe the Society is honouring one of its most worthy members. For years he has devoted himself to forwarding the highest interests of the body to which he belongs, and we are sure will fittingly and well represent the pharmaceutical chemists of the present day.

THE METROPOLITAN ASYLUMS BOARD.

It is not surprising to learn that at the meeting of the managers of the Metropolitan Asylums Board, held on Saturday last, great satisfaction was expressed at the recent decision given in the House of Lords in the Hampstead Small-pox Hospital case. The chairman, after referring to the course of litigation upon the question, said no one could conceive a judgment more satisfactory to the Board, or more overwhelming in its effects upon their opponents. The injunction against Hampstead Hospital had been removed, and the Managers would regain the costs of their former law proceedings in this case. It would be for the consideration of the Managers what further action they should take, but in the event of the other side renewing their attack upon the Board, the Managers were prepared to fight any

new trial in a very different way from what they had done in the past. The comparative return of fever patients in the several hospitals of the Managers showed that the number for the four weeks ended Friday, June 9, was 324, against 317 in the preceding four weeks, giving an increase of seven cases. There were also 264 small-pox patients remaining under treatment, showing a decrease of 27 cases during a similar period. As evidencing the manner in which small-pox is spread, a report was read from Dr. Bernard, the Medical Superintendent of the Stockwell Hospital, notifying that on the 17th ultimo a man was admitted there who stated that he had attended at Guy's Hospital the same morning, and was told that he had small-pox and must go to some place, the name of which he could not remember. He came to the Hospital on a Clapham omnibus from London-bridge, with the small-pox eruption fully out on his face. Supposing the man's statement to be correct, there had apparently been gross neglect on the part of those who saw the man at Guy's Hospital, since the case was diagnosed as one of small-pox, and yet, instead of detaining him till an ambulance could be procured, he was allowed to go away at the risk of spreading the disease in the crowded streets. Mr. Bostock also considered the case was one of flagrant negligence, and could not have occurred through ignorance, as the man was actually told from what he was suffering; he moved that a copy of the report be sent to the authorities at Guy's Hospital. Another of the Managers observed that letters had been frequently sent from Deptford Hospital, complaining of similar negligence on the part of the Guy's Hospital authorities. The Chairman was of opinion that the case was a most unpardonable one, and the motion was unanimously agreed to.



THE LONDON FEVER HOSPITAL.

The festival dinner of this institution was held on Wednesday evening at Willis's Rooms, H.R.H. the Prince of Wales occupying the chair. He was supported by the Earl of Devon (President of the Hospital), the Bishop of London, Cardinal Manning, and a large assemblage of noblemen and gentlemen. It is satisfactory to be able to record that donations amounting to upwards of £4000 were announced, and new annual subscriptions to nearly £300 per annum. It is a melancholy thing, which tells much of the want of knowledge and intelligence of the charitable public, that while special hospitals, of little use to anyone but their promoters, spring up like mushrooms, so valuable an institution as the Fever Hospital should be so seriously in want of funds as to be sorely crippled in its most important work. If people knew of the advantages it offers, it would perhaps be better supported, were it only from selfish motives.

THE ASSAULT ON DR. ORANGE.

A DETERMINED and murderous attack was made on Tuesday evening last week on Dr. Orange, the well-known and able Superintendent of Broadmoor Asylum. Dr. Orange's assailant was the Rev. H. J. Dodwell, who, it will be remembered, is retained in the Asylum for firing a pistol at the Master of the Rolls some years ago. He had expressed a wish to consult Dr. Orange with reference to a letter which he desired to write to a brother, and he handed to Dr. Orange, who was seated, some papers, relating, he said, to the subject of his letter. While Dr. Orange was examining these, Mr. Dodwell suddenly dealt him a blow on the top of the head with a stone slung in a handkerchief. Dr. Orange was fortunately not so stunned by the attack as to disable him from seizing Mr. Dodwell and defending himself till aid came. The motive which prompted the attack

appears to have been of a character precisely similar to that which instigated the assault upon the Master of the Rolls. Mr. Dodwell states, it is said, that more than a year ago he had made up his mind that, as the firing of a pistol not loaded with ball at the Master of the Rolls had not proved sufficient to obtain for him what he imagined was justice, he should be forced to commit some still more serious act, and he came to the conclusion that nothing less than an act of murder would be sufficient to deliver him from the conspiracy of which he insanely imagines himself the victim. We are glad to be able to add that happily Dr. Orange was not dangerously injured, and that he will probably soon be well enough to resume his important duties.

THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

A PETITION, signed by 248 medical practitioners of Liverpool and the neighbourhood, against the compulsory notification of cases of infectious diseases by medical men, has just been presented to the House of Commons. The feeling of the profession in Liverpool on the subject appears to be almost unanimous. The petition states—"In the opinion of your petitioners, the proposal to compel medical men, without any discretion, to report cases of infectious diseases to the sanitary authorities, is an unwise interference with the relations in which such medical men stand to their patients. That the dread of notification by them is likely often to lead to such an amount of concealment as may cause disease to spread, owing to the absence of the precautions against this which they always adopt. That there is evidence that such concealment does exist in towns where the compulsory notification of infectious diseases by medical men is the law; while there is not evidence that these towns have made greater sanitary progress than other towns which have no such law." Wherefore the petitioners pray that the House "will be pleased to reject any Bill having for its object the imposition of such notification upon medical men."

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.

WE regret to learn that His Royal Highness the Duke of Connaught being prevented by illness from distributing the prizes to the students of St. Thomas's Hospital on Saturday next, the distribution is unavoidably postponed.

THE METROPOLITAN WATER-SUPPLY FOR THE MONTH OF APRIL LAST.

THE report of the Metropolitan Water Examiners for the month of April last shows that the different companies have been making efforts to improve the quality of the supply. To begin with Colonel Bolton's remarks on the condition of the water previous to filtration, we find that the state of the water in the Thames at Hampton, Molesey, and Sunbury, where, it will be remembered, the intakes of several of the companies are situated, was good in quality from the 1st to the 23rd of the month, when it became bad; on the 27th it became very bad, and remained in that condition for the rest of the month. During the latter part of the month the river was in a state of flood. The water in the river Lea was in a bad condition during the whole of the month. In the general monthly report of Messrs. Crookes, Odling, and Tidy for last April, they say: "During this month, the condition of the water supplied to the metropolis, in respect to clearness and to freedom from brown colour and excess of organic matter, was, on the whole, considerably in advance even of its condition during the preceding month, despite a few exceptional cases of higher colour and slight turbidity occurring during the last week, and depending on the flooded state of the river." Dr. Frankland reports that the Thames water supplied by the Chelsea, West Middlesex, Southwark, Grand

Junction, and Lambeth Companies showed, with the exception of that sent out by the Grand Junction Company, a considerable improvement in quality upon that of the last month. The filtration was also more efficient, all the waters but that of the Lambeth Company being clear and bright on delivery. The Lea water distributed by the New River and East London Companies was also chemically of much better quality than in March, the New River Company's supply being, in this respect, second to none but the best of the deep-well waters. Owing to imperfect filtration, however, both waters were slightly turbid, and that of the East London Company contained moving bacteria.

THE SPECIAL MEETING OF THE OPHTHALMOLOGICAL SOCIETY.

THE extra meeting of the Ophthalmological Society of the United Kingdom, held for the purpose of discussing the value of the operation of sclerotomy in the various forms, stages, and complications of glaucoma, was largely attended by ophthalmologists. The subject was introduced by good practical papers from Mr. C. Higgins, Mr. Spencer Watson, Mr. Bader, Mr. J. B. Story of Dublin, and Mr. Swanzy of Dublin. The discussion was opened by Mr. Critchett, and continued by Mr. Teale of Leeds and Mr. George Lawson; but the interest taken in the subject necessitated an adjournment of the debate to the following evening, when it was resumed and carried on by Mr. James Adams, Dr. Brailey, Mr. Priestley Smith, Mr. Brudenell Carter, Mr. Power, Mr. Cowell, Mr. Couper, and some others. The discussion was very instructive, a large amount of clinical experience having been brought forward. A brief note on the practical result will be found elsewhere in our columns.

THE PARIS WEEKLY RETURN.

THE number of deaths for the twenty-second week of 1882, terminating June 1, was 1131 (626 males and 505 females), and among these there were from typhoid fever 41, small-pox 11, measles 36, scarlatina 7, pertussis 6, diphtheria and croup 49, erysipelas 10, and puerperal infections 8. There were also 57 deaths from acute and tubercular meningitis, 212 from phthisis, 28 from acute bronchitis, 82 from pneumonia, 108 from infantile athrepsia (28 of the infants having been wholly or partially suckled), and 31 violent deaths (29 males and 2 females). The number of deaths registered during this week is less than that of any of the four preceding weeks, a marked decrease of the principal epidemic diseases being observable—small-pox having diminished by one-half, and diphtheria counting less than 50 deaths for the first time this year. The admissions for these diseases at the hospitals have also been less numerous. The births for the week amounted to 1150, viz., 593 males (429 legitimate and 164 illegitimate) and 557 females (403 legitimate and 154 illegitimate): 103 infants were either born dead or died within twenty-four hours, viz., 58 males (42 legitimate and 16 illegitimate) and 45 females (36 legitimate and 9 illegitimate).

BROMPTON CONSUMPTION HOSPITAL.

THE new extension buildings of the Hospital for Consumption and Diseases of the Chest in the Fulham-road, Brompton, were opened yesterday by the Earl of Derby, President of the Corporation, in the presence of a large gathering of ladies and gentlemen, including the Bishop of London, the Earl of Leven and Melville (Treasurer), Mr. Beckwith (Chairman), Sir Philip Rose (Hon. Secretary of the Hospital), Mr. C. S. Hall, Sir Julian Goldsmid, Mr. J. A. Shaw Stewart, and the members of the medical staff. The new building provides 137 beds, in addition to the 200 beds in the original Hospital, and has been erected

means of a bequest of the late Miss Cordelia Read. It was designed by the late Mr. T. H. Wyatt, and has been completed by his son, Mr. Matthew Wyatt, on the best scientific and hygienic principles. The Earl of Derby, after prayers had been said by the Bishop of London, declared the building open, and in so doing stated, among other things, that at the present moment there are 300 applicants for admission, so that the beds included in the new building are already more than bespoken. The weak point of the London hospitals is, in his opinion, that they are numerically inadequate to the requirements they are supposed to meet, and that, being on an exclusively charitable basis, they do not provide for the large class of those who cannot afford to pay for the highest professional skill, but nevertheless reject and repudiate eleemosynary aid. Referring to an idea or report that the Brompton Hospital is rich through a recent legacy, the Earl observed this legacy had certainly enabled the Committee to add largely to the size of the Hospital, but this had involved a largely increased annual outlay. The noble Earl did not take the opportunity of telling his audience, and the charitable public in general, what he thinks of financial management of this kind.

THE IRISH MEDICAL ASSOCIATION.

THE annual general meeting of this body took place at the Royal College of Surgeons, Dublin, on Monday, June 5. The chair was occupied by Dr. John T. Banks, outgoing President. Dr. Chapman, Hon. Secretary, read the report, which detailed the proceedings of the Society during the past year in respect of medical reform, superannuation of union medical officers, notification of infectious diseases, vaccination, expenses of medical witnesses, incorporation of the Association, and other matters. It was stated that during the past year thirty-six new members had been added to the Association. On the motion of Dr. Martin, of Portlaw, seconded by Dr. David Jacob, of Maryborough, the adoption of the report was unanimously agreed to. Dr. Archibald H. Jacob moved, and Dr. Walsh seconded, a resolution to the effect that the "Union Officers' Superannuation (Ireland) Bill," now before Parliament, when altered in the manner promised by Government, would not afford uniform justice to the claims of medical and other union officers, and would not meet the requirements of the public service. That the Council, therefore, be requested to endeavour to have said Bill so amended that it shall become a thoroughly satisfactory measure. After some discussion, the resolution was unanimously adopted. Dr. J. W. Moore, Vice-President of the King and Queen's College of Physicians, moved—"That this Association approves of the principle of Mr. Meldon's Bill to provide for the notification of infectious diseases in Ireland now before Parliament; that the Council be requested to give that measure cordial support, and to endeavour to cause Mr. Gray's Bill on the same subject to be withdrawn." And this resolution also was passed unanimously. On the motion of Dr. Nolan, of Gort, seconded by Dr. Spencer, of Stranorlar, co. Donegal, it was resolved—"That, in the opinion of the Irish Medical Association, the administration of the law regarding public vaccination in Ireland is unsatisfactory, and that a more vigilant supervision and improved system of inspection are essential for the better protection of the public against small-pox. That it is desirable that a distinct department of the Local Government Board should be created, with power to make and enforce the general observance of such regulations as may, in the public interest, be necessary; and that the English system of inspection of public vaccinations, under which awards are granted for excellence in results, should be extended to Ireland." The meeting also agreed—"That

the indiscriminate issue of tickets for dispensary medical relief to persons who can well afford to pay has a demoralising effect on such persons, improperly imposes upon the ratepayers heavy expense, and upon the medical officers much illegitimate labour and considerable loss; that the Council be requested to take such steps as they deem best with a view to prevent abuse of the present system." On the motion of Dr. Darby, of Bray, it was resolved—"That, in the opinion of this Association, it is desirable that legislation be sought with a view to enactment of the system to provide for the support of the widows and orphans of Poor-law medical officers, which was submitted by the Council to the last annual general meeting." The business was concluded with a vote of thanks to the professional and general press for their advocacy of the fair claims of the medical profession, as well as for their reports of the proceedings of the Association. Dr. Molony, of Tulla, the newly elected President, was then called to the chair; and the proceedings terminated with a vote of thanks to Dr. Banks, the outgoing President, which was proposed by the Honorary Secretary, Dr. Chapman, and seconded by Dr. Darby.

THE ITALIAN CENSUS.

THE Statistical Department of the Italian Government has just issued a provisional summary statement of the results of the census taken December 31, 1881. According to this, it seems that on December 31, 1871, the population of Italy amounted to 26,801,154; and on December 31, 1881, it had increased to 28,451,943 in the ten years, or an annual increase of 6.16 per 1000 inhabitants. Of the sixteen divisions of the kingdom, in six the increase had been greater than the mean increase—viz., Sicily (13.66), Apulia (11.83), Rome (7.98), Sardinia (7.18), Venice (6.34), Lombardy (6.02). In ten divisions the mean was not attained—viz., Piedmont (5.86), Liguria (5.77), Campania (5.20), Calabria (4.30), Umbria (4.10), Emilia (3.34), Tuscany (3.05), the Marches (2.69), the Abruzzi (2.61), Basilicata (2.21). As compared with other countries, the increase in population is less than in the United States (30.08), England and Wales (14.34), the German Empire (11.30), and Switzerland (6.63); and greater than in France (5.56), Austria-Hungary (5.05), and Sweden (4.16).

THE HEALTH OF THE CITY OF LINCOLN.

THE annual report on the health of the city of Lincoln during the year 1881 has just been presented to the town authorities by Dr. Harrison, the Medical Officer of Health for the district. From this report it will be seen that during the past year the birth-rate in Lincoln was 35.7 per 1000, and the death-rate 15.7 per 1000, of population. Of the 673 deaths recorded during the period, 261 were those of children under five years of age; and of this number 193 were infants under twelve months. On the other hand, there were 59 deaths of persons over seventy, 39 over eighty, and 3 over ninety years of age. Eight deaths were registered from continued fevers, of which 6 were tabulated as typhoid; and 1 death was registered from small-pox. Dr. Harrison remarks that small-pox was introduced into the city three times during the year, but did not spread. One of the sufferers from this disease was removed to the infectious hospital, and after four weeks' treatment was discharged convalescent. In each case that occurred the houses, clothing, etc., were thoroughly disinfected. The report points out that although the small-pox hospital on the West Common is very useful for isolating a single case of infectious disease, the accommodation would be wholly inadequate should an epidemic of any description occur. Dr. Harrison observes that during the last fifteen years no report has recorded so

few deaths from typhoid fever in Lincoln as the present, or shown such immunity from zymotic fatality; but he points out that, although the death-rate is remarkably low, there are several recommendations which he has put forward from time to time that have not yet been attended to, such as an improved system of scavenging, regulations as to piggeries, the establishment of a public slaughter-house out of the city, and the abolition of private slaughter-houses; whilst the amount of unconsumed smoke emitted by some of the local manufactories might, with advantage, be noticed by the city authorities.

THE REPORT OF THE METROPOLITAN BOARD OF WORKS FOR 1881.

IN accordance with Parliamentary requirements, the annual Report of the Metropolitan Board of Works for the year 1881 has recently been made public. One glance at this voluminous work and its list of contents is sufficient to suggest a doubt as to the capability of the Board to carry out the numerous and varied duties entrusted to its management, and a hope that, at any rate, in the future, nothing more will be added to its already overtaxed powers. If we turn to those portions of the Report in which our readers would most probably take an interest—a very small proportion, by the way, of the whole,—we must notice sewerage and drainage operations. Under this head we get a confirmation of a statement already circulated, that the Board has resolved to enlarge the reservoirs at the Barking and Crossness outfalls to about 50 per cent. beyond their present capacity. This will admit of the largely increased quantity of sewage being stored until the ebb-tide, and so obviate complaints which have been made when, from absolute necessity, the gates have had to be opened on the flood tide. This question naturally brings us to the next important head—the state of the Thames. On this subject the Report remarks that the investigation into alleged impurity is still being continued; but, from reports which have already been made, the Board have every reason to believe that it will be found, upon careful examination, that the water from Hampton to below Woolwich is not in an abnormal state, and that its condition cannot, at any rate, be attributed to the main sewage outfalls. It is needless to point out that this statement is completely at variance with the experience of the Thames Conservancy Board, which we recently published. After recapitulating what has been done during the year under notice in carrying out the Artisans' and Labourers' Dwellings Act (not much, it would appear), the Report states that no official representations have been received from medical officers during the year 1881, and, pending the decision of the Select Committee of the House of Commons as to the amendment of the Acts, no new schemes have been prepared by the Board. Very little information is forthcoming under the head of water-supply; at the beginning of the year the Board anticipated that during the session the Government would introduce a Bill constituting a water authority for the metropolis. Irish obstruction, however, prevented all legislation in this direction, and the notice on the subject given in the *London Gazette* of November, 1880, did not appear in that publication for November, 1881; from which it is to be inferred, the Report thinks, that no Bill will be produced for consideration in the present session. In detailing what has been done, during the year 1881, under the provisions of the Infant Life Protection Act, the report says that no opportunity has yet been found by the Government for acting on the suggestions made by the Board for the amendment of this Act with a view to making it more effective. Briefly stated, the leading suggestions are:—1. That the operation of the Act should be extended to infants under five years of age, and to the keep-

ing for hire of any number of infants. 2. Where two or more adults live together and take infants for hire, they should be severally liable. 3. Parents should not be relieved of their responsibilities by the payment of sums of money to other persons for adopting the children. The remainder of the Report calls for no comment at our hands, as it deals with various subjects beyond our cognisance.

A REQUEST.

A SYSTEM OF GYNÆCOLOGY by American authors is in preparation, and the task of writing the chapter on "the history and statistics of ovariectomy" has been allotted to Dr. J. E. Janvrin, of New York. He is anxious to make his statistics as complete as possible, and asks us to help him by publishing the following list of questions, to which he would be glad if operators would give him answers concerning their cases. He will send blanks containing lists of the questions to any address. We are glad to give him the help he asks; but we do not know whether he expects Mr. Spencer Wells, for instance, to write out all these particulars concerning each one of his thousand and odd cases. The questions to be answered are as follows:—1. Name of operator? 2. Age of patient? 3. Nationality? 4. Married or single? 5. Aspiration or previous tapping? 6. Duration of growth? 7. Laparotomy or vaginal operation? 8. Condition of patient at time of operation? 9. Were antiseptic precautions used? 10. Was the spray used? 11. Long or short incision? 12. Adhesions or other complications? 13. Double or single ovariectomy? 14. Pathological features of cyst? 15. Treatment of the pedicle? 16. With or without drainage? 17. Duration of operation? 18. Complicated or uncomplicated history after operation? 19. Antipyretics used, if any? 20. Result. Cause of death, if any? 21. Primary or secondary operation?

SANITARY CHRONICLES OF THE PARISH OF ST. MARYLEBONE FOR MARCH AND THE MARCH QUARTER OF 1882.

THE Medical Officer of Health for St. Marylebone, after commenting upon the exceptional mildness of the weather during March last, gives the approximate annual birth-rate for the month as 30 per 1000, and the approximate annual death-rate as 20·42 per 1000, the latter being very low for an early spring month. The mortality from zymotic diseases also showed an improvement. In the ten preceding years 193 per 1000 of the deaths in the parish were attributed to infectious fevers; the number this year, so far, is only 113 per 1000—a difference of 8 per cent. On the other hand, the fogs of the early part of the quarter ended March 31 last neutralised to some extent the preservative effects of mild weather, and fatal pulmonary affections were more rife than usual, their relative fatality being represented by the mathematical abstractions of 313:279. Nevertheless, Mr. Blyth observes, tubercular affections appeared to be less, while the wasting and convulsive diseases of infancy were nearly the same as usual. Mr. Blyth calls attention to the fact that this time last year he ventured to forecast the probable severity of the small-pox epidemic of which the parish, in common with the rest of the metropolis, was just experiencing the commencement, but at present, he adds, there are no coming shadows, and with very great confidence it may be predicted that small-pox will attain nothing like epidemic proportions. A few sporadic non-fatal cases have occurred during the past three months in the parish, but for some weeks there has been a remarkable freedom from all infectious fevers. The report records that a large proportion of the inhabited basements in the parish had been personally examined, and action was taken in those cases in which, on grounds of health, it seemed desirable to move; but these formed but a small number of those inspected. Every

sanitarian, Mr. Blyth remarks, will welcome the day when it is possible to prevent the inhabiting of rooms below the level of the street. But at present such a wholesale unhousing of a hard-working population is in itself impracticable; it would be cruel to the people, and ruinous to landlords, while it would cause such an overcrowding of upper floors as would prove productive of great moral and sanitary evil.

MEDICAL PARLIAMENTARY AFFAIRS.

Vaccination.—In the House of Commons, on Thursday, June 8, Mr. Dodson, in reply to Mr. Hopwood, said that he had been in communication with the French Government relative to the alleged inoculation of some French Zouaves with a foul disease by means of vaccination, in December, 1880. The reply which he had received was incomplete and unsatisfactory. He had therefore directed another application to be addressed to the French Government by the Foreign Office, and he hoped there would be no objection to give some further information as to the grounds of this allegation.

American Cheese.—On Monday, June 12, in reply to an inquiry, Mr. Chamberlain stated that the Custom House authorities are making investigations, by means of a Select Committee, into the questionable practice of shipping to this country "cheese made from skim-milk and lard." He further stated that under the Sale of Food and Drugs Act no article could be sold to the detriment of the purchaser unless specifically labelled as adulterated or containing some mixture. It may be doubtful whether such a mixture is detrimental to health, and on economical grounds it may be, he alleged, desirable that our farmers should become acquainted with a method of utilising their skimmed milk.

Metropolis Management and Building Acts Amendment Bill.—This Bill passed through committee of the House of Lords on Tuesday, June 13.

Vaccination.—On Tuesday, June 13, Mr. P. A. Taylor directed attention to the verdict of a coroner's jury at Holloway, of "Shock to the system following vaccination," the medical evidence being that the child might have survived two incisions, but was unable to withstand the shock caused by four punctures. Mr. Dodson, in reply, said that the Privy Council certainly do direct the public vaccinators to make four scarifications as requisite to insure perfect vaccination. Contrary to the medical testimony at the inquest, he must state that the official instructions direct the public vaccinator to ascertain the state of the child's health before he undertakes to vaccinate it.

At the Encænia, or Commemoration of Founders and Benefactors, at Oxford, the honorary degree of D.C.L. of the University was conferred upon the eminent anatomist and physiologist, Dr. Allen Thomson.

THE *conversazione* given by the Royal College of Physicians on Wednesday evening was a very brilliant and successful entertainment. The grand staircase and the fine library and adjoining rooms were richly and very tastefully graced with flowers; and many valuable pictures, with a large collection of other objects of interest, were distributed in the library and elsewhere. H.R.H. the Prince of Wales arrived at the College about half-past ten, and stayed a considerable time. The Duke of Albany also visited the College later in the evening. The admirable music admirably discoursed by the Artillery Band added not a little to the pleasure of the distinguished and very numerous guests of the College.

THE DISTANT TELEPHONE.—Telephonic communications have recently been interchanged between Brussels and Paris, the problem of executing these having been solved by M. Van Ryselberghe's new invention. The French Government, it is said, has just purchased this new system for a million francs, the Belgian Government, to whom the inventor had offered it, having refused to buy it.—*Union Méd.*, June 8.

FROM ABROAD.

THE INFLUENCE OF ANTISEPTICS ON THE PERIOD OF AMPUTATION.

DR. STEPHEN SMITH, of Bellevue Hospital, New York, in a clinical lecture delivered upon the case of a boy (*Philadelphia Med. News*, April 15) whose leg had been completely crushed just above the ankle by the wheel of a street car passing over it, observed that in this kind of accident the wheel is almost always thought by the suffering person to have really passed over the injured part, whereas it usually pushes the limb before it, crushing and lacerating its sides and fracturing the bones. An examination enables us to decide whether this is the case or not, for if the wheel has, as in this case, passed actually over the limb, this will be so thoroughly crushed that bones are comminuted, muscles reduced to a pulp, and arteries, veins, and nerves destroyed. In trying experiments with a car wheel on the dead subject, it is somewhat difficult to make it mount over the limb, the tendency being to push this along the track and crowd it off upon one side. In this act the side of the limb will be lacerated and the bones broken, but the muscles, vessels, and nerves on the opposite side may be uninjured. When called to a case in which we are satisfied that the wheel has passed directly over the limb, this cannot be saved, and amputation is inevitable, while when the limb has only been pushed off the rail the question of amputation will be more or less doubtful, according to the nature and extent of the injury. In our times we can save limbs that surgeons formerly would not have hesitated to amputate. As a rule, if the arteries and nerves are still intact, the limb can be saved. Disinfectants and plaster of Paris, judiciously used, will save the most unpromising cases.

"But the question which chiefly interests us in this case is this:—Why was the operation, when from the first amputation was inevitable, delayed to the critical period? It will be a sufficient answer to state that the patient is in better condition for the operation to-day than he has ever been since the injury was received. In explaining this statement I wish to emphasise the fact that antiseptics, efficiently employed in these cases, greatly modify our procedures. When it was decided that the injury necessarily involved the loss of the limb, the patient was profoundly under the influence of shock. His surface was pallid; his pulse small and rapid; his respiration hurried. He was restless, and large drops of sweat stood upon his forehead. The first indication, therefore, was to restore him from the shock, which threatened life immediately. Stimulants, dry frictions, and external heat were employed. The second indication was to dress the limb, and the appliances used were these:—It was laid on a rubber cloth, placed on pillows, and so arranged as to make a trough, which inclined downwards and beyond the foot of the bed. Above the limb a bottle was suspended, containing a 3 per cent. carbolic acid solution, from which common candle-wicking depended, the wicking being so arranged that the carbolised water constantly fell on the entire crushed wound, and ran off into a vessel at the foot of the bed. The object of this irrigation was to prevent putrefaction and inflammation. The patient slowly rallied, and at the end of eighteen hours was warm and in a favourable condition. Formerly this was the period for amputation, for the danger which the older surgeons feared was the impending inflammation, which began in about twenty-four hours. But no prudent surgeon has submitted such a patient to the second shock, which results from amputation, without a feeling of keen regret and with intense anxiety. Too frequently has he been arrested in his operation by the announcement that the patient was pulseless. Artificial respiration, hypodermic injections of brandy, etc., have rallied the vital forces so that the operation could be completed and the patient removed to his bed. But the revival was momentary. The nervous centres were too profoundly damaged to maintain their functions, and death was inevitable.

"Since carbolic acid has become so generally used in wounds I have ceased to regard time as an element in amputations. My attention was first called to the power of this class of agents to prevent inflammation many years before carbolic acid came into use. A crushed foot came

under my care, and it was doubtful whether amputation would be required or not. I suspended the limb and irrigated the wound with creasote water for ten days, during which time there was not the slightest evidence of inflammation in the parts, nor was there any fever. At the end of that period it was evident that the foot could be saved. It is now a matter of every day's experience that carbolic acid, constantly applied to crushed tissues, as in irrigation, will arrest all tendency both to putrefaction and to inflammation. This boy is a striking illustration of the power of this agent to protect a patient from those secondary evils which occur to injured parts. For four days he has been recovering from the primary injury, without being in the slightest degree damaged by the local conditions. There has been no other fever than that of reaction from nervous prostration, and that passed off on the second day. He has been taking food freely, his sleep is sound and refreshing, his pulse is nearly normal, and in every respect he seems fully restored. The shock of amputation will now be comparatively slight, and certainly will not be dangerous in the sense it would have been if I had amputated within twenty-four hours of the injury. But to guard him against the possibility of harm he has been taking two teaspoonfuls of whisky with milk every hour for four hours, which has caused moderate exhilaration. It is not absolutely necessary to amputate to-day, as far as the limb is concerned, for we can maintain it in the inert state for many more days, but the patient's general condition is entirely favourable, and as amputation is inevitable, it may be better done now, and thus diminish the total length of time required for recovery. The lesson which I wish to impress on your minds is this. In crushing injuries requiring amputation, treat the lacerated parts with carbolic acid water applied by means of irrigation until the patient is in a favourable condition to endure the shock. I need scarcely say that the same treatment should be adopted in similar injuries which do not require amputation, during the period of impending inflammation. But to be useful, the solution must penetrate the injured tissues, and to effect that it is often necessary to make incisions through the skin."

The leg was amputated below the knee, with but slight shock, and the patient made a good recovery.

ABSORPTION OF SEQUESTRA.—Prof. Lannelongue read a communication to the Société de Chirurgie (*Union Méd.*, May 23)—"Experimental Researches on the Grafting of Dead Bone on the Living and the Absorption of Sequestra." The absorption of sequestra, he observed, has not been sufficiently elucidated, as it has not been demonstrated experimentally. A sequestrum may exist in two conditions, either bathed in pus or surrounded by a granulating membrane—the granulations of which attach themselves to its surfaces and anfractuosités. In the first case, observation has determined that the sequestrum retains its form and characteristics for an indefinite period, its size undergoing no diminution. But when sequestra are surrounded by a granulating membrane or fungosities, considerable absorption may take place. The experiments of Billroth and others on the absorption of ivory implanted in the living bones and tissues have given considerable support to this opinion; but no experiments of the absorption of bone itself implanted in living osseous tissue had been made until M. Lannelongue undertook them by introducing into the bones of living animals fragments of utterly dead bone (after disinfecting them) which had been kicking about the dissecting-rooms for months, or even years. Complete absorption took place, the essential condition being that the sequestrum or the fragment should not be surrounded by pus, but by a layer of vascular granulations, which, becoming engaged in the Haversian canals, cause the disappearance of the dead bone. The absorption of dead bone takes place more rapidly than does that of ivory, and as it is followed by the formation of a new bone it should be preferred to ivory in the practice of excisions for the maintenance of the fragments *in situ*.

SMALL-POX AT DARWEN.—The small-pox epidemic which has prevailed in Darwen during the last six months has at last, it is said, been stamped out. The only remaining patient in the hospital has been discharged. Out of a total of twelve deaths ten have occurred in the hospital.

REVIEWS.

St. Bartholomew's Hospital Reports. Edited by Dr. CHURCH and Mr. LANGTON. Vol. XVII. London: Smith, Elder, and Co. 1881. Pp. 347.

THE somewhat laboured style of many of these Hospital Reports is agreeably varied in the volume before us, which is really a very interesting and valuable publication. The first paper is by Dr. Matthews Duncan, "Notes on the Morbid Anatomy of Douglas's Pouch." Surgeons, as well as obstetric physicians, will find some useful information; for "*psosas*" abscess even may point here, as well as hernia (the which, occurring in male subjects, must of course be looked for in the perineum).

Dr. Gee contributes a thoughtful paper on what he calls "Osteal or Periosteal Cachexia." It relates "to a kind of disease whereof the foremost characters are cachexia and swelling of bone. With regard to the cachexia, it is to be especially noted that there were no reasons for connecting it with disease of the spleen, liver, or lymphatic glands, with leucocythæmia, or albuminuria." Some of the patients were rickety, but the enlargement of the bones was quite apart from anything associated with this disease, as usually understood; nor was the condition syphilitic, as usually understood, though the possibility could not be denied. Five cases are related, in patients aged fourteen, twelve, twelve, sixteen, and nine months respectively. Three of them died, one was not seen again, and one appeared to be recovering. No post-mortem or naked-eye description of the bones was obtained. The condition is a thickening of some of the long bones, without suppuration; great cachexia; pain; no enlargement of viscera; and generally no undoubted signs of hereditary syphilis.

Dr. Andrew adds a note to a paper by Dr. Harris on "Tufnell's Treatment of Aortic Aneurism," from which we take the following—"Fully admitting with him (Dr. Harris) that Tufnell's treatment of internal aneurisms leaves much to be desired, still, a method which is successful in three cases out of thirteen, and which is attended by little or no danger to the patient, is at least not inferior to any other in present use. . . . The observance of the following rules is of the utmost importance:—Place the patient at once upon the minimum diet, and forbid even the slightest movement which can be avoided. The room in which he lives must be as quiet and secluded as possible. No treatment by drugs is to be attempted at the same time. Listen to no complaints of thirst so long as the pulse and temperature are normal, or nearly so, and the whole allowance of solid food is consumed." The advice is excellent.

Dr. Hensley gives a "Report of Cases of Empyema. Treated by Irrigation; with Remarks upon the Operation of Paracentesis Thoracis." One of the cases is that of a man aged fifty-two, the final result of which was excellent, although the empyema seems to have been a very extensive one—on one occasion 115 ozs. of pus were withdrawn, on another 114 ozs. The case is too long to be quoted here; its study will prove interesting, as well as instructive, to those who have such cases to deal with. Dr. Hensley's plan of treatment deserves trial. It seems to consist essentially in getting out what pus we can, and then, by copious irrigation, reducing what is left in the cavity to the thinnest possible solution. "This alternate change of outward and inward current must be continued until it be judged that the pus is washed out as completely as possible. The observation of the appearance and specific gravity of the discharged fluid gives the means of judging when enough has been done." Carbolic acid (1 per cent.) is used at first, and finally a weak solution of iodine.

Dr. Norman Moore gives an historical case of typhoid fever—"A True Account of the Illness, Death, and Opening of the Body of the Most High and Most Illustrious Henry Prince of Wales, deceased, at St. James's, in London, the 6th of November, 1612,"—which will be perused by bibliophiles with curiosity.

"Our Museum and its Associations," is the title of an interesting paper by Mr. Eve. In the minutes of the Governors, dated June 23, 1726, a resolution, ordering two convenient rooms, one for a museum, and the other for a mortuary, is found; and it is also ordered that Mr. Freke "do keep the key of it, and shall be accountable for the loss

of any preparation; and when he shall decline it, the youngest assistant-surgeon shall do the same." Among the earliest specimens, of which there is a record, is one of congenital hernia, dissected by Percival Pott, Surgeon to the Hospital from 1749 to 1787.

A valuable contribution to the subject of Paracentesis Pericardii will be found from the pen of Dr. Steavenson, House-Physician at Great Ormond-street. Mr. Thomas Smith's paper "On Supra-pubic Puncture of the Bladder" deserves careful study. Dr. Wickham Legg gives a *resumé* of what has been written on the subject of Hæmophilia during the past ten years. Altogether, the volume is of unusual interest and excellence.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 26.

JOSEPH LISTER, D.C.L., F.R.S., F.R.C.S., President,
in the Chair.

RHEUMATIC FEVER TREATED WITH IODIDE OF POTASSIUM AND SULPHATE OF QUININE.

DR. E. HEADLAM GREENHOW read a paper on cases of rheumatic fever treated with iodide of potassium and sulphate of quinine. It comprised notes of forty-three cases of rheumatic fever which were under the author's care in the Middlesex Hospital, between the beginning of 1875 and the summer of 1876. Like the groups of cases treated with salicin and salicylate of soda, communicated by him to the Society in 1880, they were all treated as nearly as possible in an identical manner, the medicines being administered in the same form in each of the cases. The iodide of potassium was prescribed in a simple solution, containing five grains each of iodide of potassium and carbonate of ammonia, and the sulphate of quinine in that of pill, consisting of two grains of sulphate of quinine and three of extract of henbane. In the reports of the cases they will be referred to as the treatment with "iodide of potassium and quinine." Further, all the patients were kept in bed, and restricted to milk diet and beef-tea until the pains and fever had entirely abated; the painful joints were closely enveloped in cotton-wool; and, whenever any cardiac complication was present, a mixture of equal parts of extract of belladonna and ointment of iodide of potassium was applied over the præcordia. Sedatives, aperients, and stimulants were only administered when they appeared indispensable, and always as sparingly as possible. No remarkable physiological effects having been observed to follow the treatment, the reports of the cases have been shortened as much as possible, and only comprise the more important facts. The cases varied greatly in character and intensity. Some of them were so mild that they would probably have recovered quite as quickly under confinement to bed and fever diet, without any therapeutic treatment whatever. On the other hand, other cases were really very acute. A comparison of the present series of cases with those previously communicated to the Society, demonstrates the fact, well known to hospital physicians, that rheumatic fever varies much in intensity and character at different periods—a fact which has probably sometimes led to an over-estimate of the value of certain remedies in its treatment. In confirmation of this is the fact that not only did none of the cases included in this paper pass into a state of hyperpyrexia, or manifest any other symptom of cerebral rheumatism, but also that no case of rheumatic fever with hyperpyrexia came under the author's care during the eighteen months over which this series of cases extended. Again, pneumonia or pleuro-pneumonia only supervened in three cases whilst under treatment, and, including the one fatal case, existed on admission in only two cases. A very large proportion of the cases were attended by cardiac complications, which were for the most part noticed on the day of admission, twenty-six of the patients having presented unequivocal evidence of the existence of either pericarditis or endocarditis—in some instances of both—when received into the wards, whilst similar affections were developed after admission in only six cases. Due allowance being made for

the probability that some of the patients who had suffered from previous attacks of rheumatic fever may have been the subjects of cardiac disease before the accession of their recent attack, it would appear that cardiac complications occurred in at least one-half the cases. Relapses only occurred in nine cases. The relapses were of short duration, and in no case was there more than a single relapse. Albuminuria existed on admission in eight cases, and became developed in two subsequently to admission. In all these cases it may be looked upon as having been a complication of the rheumatic fever, and not as an independent condition, for, the single fatal case alone excluded, the urine became perfectly normal in them all as recovery took place. Albuminuria and pneumonia were both present in three cases, and were simultaneously developed under observation in one case. Delirium was observed in five cases; epistaxis in five cases. In one of these cases it occurred before the commencement of the special treatment. In another case it recurred several times; and in a third was so profuse as to necessitate plugging the nostrils. Marked depression of the heart's action only happened in three cases. In the last of these cases the patient had been already under treatment, by which the symptoms of rheumatic fever had been suspended at the time of her admission into the hospital in a state of alarming collapse. As this subsided about the seventh day after admission into the wards, the rheumatic fever relapsed. The form in which the medicines were given having already been described, it is only necessary now to say that they were prescribed in moderate quantities, none of the patients having taken more than eight grains of sulphate of quinine and twenty of iodide of potassium in the twenty-four hours; in a few cases an even smaller quantity was given. In two cases the treatment was discontinued at an early period—in the one because of the occurrence of an aphthous condition of the mouth and fauces; in the other, on the development of an attack of acute pleuro-pneumonia, over which the treatment appeared to exercise no control. In three cases there was a delay of from three to seven days in commencing the special treatment. The pains and fever usually subsided together in the uncomplicated cases. In twenty cases the pains ceased, and the temperature became normal within five days from the commencement of the special treatment. In three other cases the pains continued for some days after the temperature had fallen to the normal standard; but in none of the uncomplicated cases did the temperature remain febrile after the pains had ceased. In two very acute cases the pains and febrile temperature ran on for eighteen and twenty-one days respectively; in one case also—a very acute case, and attended by profuse epistaxis—the pains and high temperature continued for fifteen days; and in another case, attended by purpura, for twelve days. Twelve cases were in the hospital from six to eight weeks. Excluding the two cases already referred to, in which the treatment was soon discontinued, and also seven very mild cases, which were each less than twenty days in the hospital, the remaining thirty-four cases were on the average each thirty-six days in the hospital. The paper concluded: "Even though it be assumed that there was a considerable difference in the character and intensity of the disease at the two periods, my experience of the results attained by the treatment of rheumatic fever with iodide of potassium and sulphate of quinine contrasts favourably with that by salicin and salicylate of soda described in my former papers. How far the treatment described in this communication is really efficacious can only be determined when it shall have been compared with the results obtained by the treatment of a considerable number of cases upon some very simple plan. This I hope to be able to do at a future time, and shall meanwhile defer the discussion of the question."

Dr. GLOVER regretted that two substances so different in their modes of action as quinine and iodide of potassium had been used simultaneously in the treatment of these cases, as it greatly interfered with the value of the statistics. He was glad to hear that Dr. Greenhow proposed to publish a further series of cases.

PRURIGO OF HEBRA.

Dr. RADCLIFFE CROCKER read the account of a case of the prurigo of Hebra, which he had shown at a former meeting. He also showed another case of this disease, a girl eight years old, to demonstrate the great improvement, and

indeed apparent cure, produced by appropriate treatment, but which, judging by previous experience, would prove to be merely a temporary amelioration, the disease returning nearly as bad as ever when treatment was left off in cold weather, though through the summer she might keep fairly well. The other patient was a girl aged nine, with good general health; the disease began when she was six months old with wheals and vesicles which became sores. The characteristic papules began when she was between two and three years old, but the disease did not attain to its worst until she was seven years old, since which there had been no morbid change in her condition, though temporary ameliorations have occurred in the summer. The itching is at times most intense, and she presents in a marked degree the other symptoms described by Hebra, viz.:—1. Pale red, slightly raised papules with scabbed tops, on the extensor surfaces especially of the forearm and leg, the skin being thickened and slightly pigmented; 2. Eczema varying in extent at different periods, but always absent from the flexures of the limbs; 3. Wheals developed in proportion to the scratching; 4. Occasional ecthymatous sores; and 5. Enlargement of lymphatic glands in various parts. The treatment that gives most relief is alkaline baths, tar ointment well rubbed in, good food, iron and cod-liver oil, and last, but not least, tincture of *cannabis indica* gives material relief to the itching, and most of the lesions of this disease are consequent upon the insatiable desire for scratching. Dr. Crocker was of opinion that, if the distinctive symptoms taken collectively were borne in mind and cases looked out for, the disease would be found to be not very uncommon in this country.

Dr. SOUTHEY said that Hebra laid some stress on the presence of indican in quantity in the urine of such patients. Constipation was often present, with scybalous motions, often mixed with shreds of lymph or detached mucous membrane.

Dr. THIN said that such cases had been treated by pilocarpin. The remedy was not very rare in England, though long overlooked; he had chiefly seen it in children. If early attacked, he thought this disease curable, especially with intelligent co-operation.

Dr. CROCKER had not tested the urine for indican, but considered its presence only natural. There had been no serious constipation, and he had not used pilocarpin, chiefly because the treatment adopted did so well. In some cases great improvement had followed rest, good food, and improved hygiene.

ICHTHYOSIS INVOLVING THE ENTIRE SURFACE OF THE BODY.

Dr. BERNARD O'CONNOR read a paper on ichthyosis involving the entire surface of the body. The author illustrated his remarks on this subject by exhibiting two sisters, aged respectively twenty-nine and twenty-seven years, presenting universal and congenital ichthyosis. The elder one had been under his treatment during the preceding three months. She was brought before the Society early in March last, when the characteristic scales covered the entire surface of the body, including the palms of the hands, the soles of the feet, and, though to a less extent, the eyelids and the forehead. The family history, so far as could be obtained, was good; no cutaneous affection had ever been known in either the father's or the mother's family. The patient is the second born of a family of seven. The eldest is a son; the remaining five children are daughters. The patient and the second daughter were born with the affection. The fifth also had it, but whether born with it or not is uncertain; she died at the age of nine months. The three remaining girls were unaffected. No particular odour was observable on the surface of the body. The unaffected portions of the face, the palms and the backs of the hands, especially the latter, perspired freely. No perspiration was ever discoverable in any other situation. During the few days preceding the catamenia, scales always fell off in abundance, particularly when the patient was in bed, but other scales immediately appeared in their place. Her general health was found to be excellent, though a scrofulous aspect was noticeable. Prior to coming under recent treatment she had never been more susceptible of the influence of cold than are the majority of individuals, but lately, since the scaliness has diminished, she has frequently complained of the changes of temperature. She regards this last fact as quite a new feature in her case. These two sisters had been,

especially during their earlier years, the subjects of medical treatment in various quarters. She herself had given up all idea of any improvement in her condition. There is now a marked diminution of the scaliness all over the surface. The face is perfectly free. The affection on the neck is reduced to a mere roughness. The forearms, wrists, and hands are clear, and the front of the chest, though leathery to the touch, no longer presents the imbricated appearance noticed three months ago. Dr. O'Connor then referred to the treatment. Jaborandi had, on a few occasions, caused a profuse shedding of the scales; warm baths and emollient applications, lotions containing borax, glycerine, etc., rendered the surface softer; blistering acted as on a normal skin, but the ichthyotic condition was quickly renewed. On the whole he placed no reliance on external treatment. Arsenic (combined with iron) and cod-liver oil internally are the means which he has found most serviceable. As to the pathology of ichthyosis, Dr. O'Connor inclines to the belief that an hypertrophied condition of the papillary layer and a thickening of the true skin are probably the essential elements in the affection. Respecting the distribution of the disease, out of thirteen well-marked cases that have come under his notice, only three have occurred in females. This, he believes, is in accordance with general observation. Ichthyosis resembles some other disorders (such as pseudo-hypertrophic muscular paralysis, colour-blindness, the hæmorrhagic diathesis, etc.) in that, while it generally appears in the sons, it descends through the daughters, of an affected family.

LUPUS-PSORIASIS.

Dr. STEPHEN MACKENZIE related a case of lupus-psoriasis. The subject of the eruption was a lad aged nineteen. There was no history elicited of struma or of skin-diseases in his family. The disease began in his face three years ago, and was confined to this position until nine months before he came under observation; it then spread to the forearms, and gradually involved the upper arms, the trunk, and lower extremities. The patient was well nourished, free from any sign of glandular enlargement, visceral or bone disease. When he came under observation his face presented the characteristic appearances of lupus vulgaris. In addition to this, however, on the upper part of the chest in front, between the shoulders, over the lower part of the back, and symmetrically distributed on the outer aspects of the arms and forearms, on both the buttocks, the thighs, and legs, were discs having depressed centres, and a few fine scales intermixed with dull red scars. The skin of the extremities of the fingers was red, rough, and cracked, and there were a few papules on the dorsa of the feet. The patient under one-drachm doses of citrate of potash, and later iodide of iron with arsenic, improved somewhat, but perionychitis became troublesome, and led to erysipelas of the right arm. The attack was severe, but the patient made a satisfactory recovery, and the eruption continued to improve. Later, when the treatment of the case concluded, a good deal of the active eruption had subsided from the trunk and extremities, leaving scars in the positions in which it had occurred. His general health was good. The points to which attention was directed were—that the eruption on the face was characteristically lupus; that the eruption on the trunk and extremities resembled psoriasis in its scaly appearance and symmetrical distribution; but, unlike psoriasis, and like lupus, it left scars. Hence the name "lupus-psoriasis," given to the conditions by Mr. Hutchinson, seemed appropriate in characterising its nature and distribution. The condition is a rare one, and, as far as the author was aware, was only described by Mr. Hutchinson. A sister of the patient, who has slight, but well-marked, psoriasis, has since been seen. This brings the lupus element of the case into closer alliance with psoriasis as regards its essential nature, as well as in its appearance.

Dr. CROCKER deprecated the addition of another term to the already cumbrous nomenclature of skin diseases. He thought the case a variety of lupus presenting some of the characters of psoriasis.

Dr. THIN asked if the case was at all like lupus erythematosus, and, if so, how were the two distinguished?

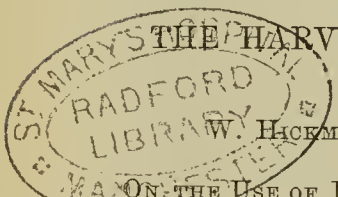
Dr. MACKENZIE thought the term quite justified as describing the condition. A sister had suffered from psoriasis, and he thought the disease a hybrid between lupus and psoriasis. The features resembled lupus erythematosus.

DOUBLE HÆMORRHAGIC PLEURISY, WITH FORMATION OF CHOLESTERINE.

Dr. CHURTON (Leeds) communicated the sequel to a case of double hæmorrhagic pleurisy, with formation of cholesteroline, read to the Society in November. The patient was then recovering from an empyema on the right side, and the left pleura seemed free from fluid, although dulness and absence of breath-sounds persisted in the lower axilla. Fluid now collected, the temperature remained high, and he lost flesh. A few days after his return from Scarborough (November 25), aspiration of the left chest evacuated some pus, and on December 8 a free incision was made, the right empyema having healed. Much pus, containing cholesteroline, was evacuated, but the subsequent discharge was scanty and offensive. Signs of septicæmia set in, and he died rather suddenly on the sixth day after the operation. At the autopsy a thick layer of old degenerated cells and lymph containing cholesteroline was found in the floor of the left pleura, but there was no fluid pus. A few small nodules occurred at the apex of the lung, which was considerably compressed. The origin of the cholesteroline was explained by the fatty degeneration of those cells accumulated in former attacks of pleurisy. No such deposit of cells was found on the right side, where the lung was universally adherent. A few small nodules also occurred in the apex of this lung, but no miliary tubercle—the case thus disproving Fränkel's assertion that double hæmorrhagic pleurisy is almost certainly of tubercular origin. In the anterior margin of the liver was a caseous mass, the size of a marble; otherwise the organs were quite healthy.

The PRESIDENT regretted the absence of Dr. Churton, as he would have liked to know whether the omission of the spray had been the only antiseptic precaution left out. It was admitted that the fatal result was due to the admission of septic germs.

This closed the business of the Society for the session 1881-82.



THE HARVEIAN SOCIETY OF LONDON.

THURSDAY, MAY 25.

HICKMAN, M.B., President, in the Chair.

ON THE USE OF INFUSION OF MALT AS AN INFANTS' FOOD.

MR. STEWART read this paper. The author's object was, he said, to solicit a trial in suitable cases of a remedy which had been very useful in his own hands under the circumstances he was about to mention. This remedy was a freshly prepared infusion of malt, and for the purposes of this paper he would call it "malt-tea." As practitioners, all knew how difficult it was to suggest the proper food for infants who were brought up by hand, *i.e.*, the feeding-bottle, and how often the best wishes were disappointed. Milk, either pure or condensed, and the many different kinds of foods advertised as panaceas, constantly failed to fulfil the objects required, if they did not altogether cause mischief, in the forms of vomiting, dyspepsia, marasmus, and atrophy. Some time since a little boy was brought to him suffering from tabes mesenterica; he was fifteen months old, and had been brought up by hand. Every kind of food had been tried, only to be vomited immediately or carried off by the bowels. The little fellow evinced a preference for milk before all other foods; but it was returned immediately, no matter under what form it was administered. He had it given to him freshly milked, pure, cold, warm, scalded, mixed with water in varying proportions, also with lime-water, the carbonates of magnesia, soda, and potash, in every possible combination, all with the same result—either to be returned at once by the mouth, or as diarrhoea. After careful consideration, the author ordered some malt-tea to be made, and that the child should have an equal part of fresh milk and of the malt-tea every hour, and not more than half a wine-glassful of the mixed liquids each time, until the stomach would bear more. The little boy took to this diet at once, and soon afterwards his vomiting and diarrhoea ceased. In a few days more he began to gain a little flesh. Unfortunately, having been exposed to cold, he subsequently succumbed to bronchitis, but not until the great benefit he had derived from the use of malt-tea was manifest. This case was only one out of many in which

infants had thriven under the use of malt-tea mixed with milk as a diet; and the author now felt that he had a valuable addition to the *ménage* of children, readily and easily prepared. In the case of very young infants its use should be begun by adding one-third of milk, one-third of malt-tea, and one-third of water, ultimately omitting the water as the little patient could bear it. Another class of cases in which the malt-tea had been found serviceable were those of phthisis or of phthisical diathesis, where there was a great loathing of cod-liver oil, and of fatty substances of all kinds. This was illustrated briefly by the case of L. E. J., aged twenty, a young lady in whose family there was a long phthisical history. In the summer of 1880 she began to lose appetite and flesh so much that her friends became very anxious about her state of health. From time to time examination failed to reveal any physical symptoms of lung-disease. Yet her manifestly defective nourishment induced the continued use of tonics and cod-liver oil; this latter remedy produced much nausea, and its use had to be stopped. Pancreatic emulsion met with the same fate, as did cream, butter, bacon, the different kinds of malt extracts and maltine. Of these latter remedies, maltine agreed better with her than any of the others, but ultimately it also caused vomiting. The author, having seen the value of malt-tea in marasmus of infants, recommended his patient to try it, taking not less than a pint daily, in doses of one wine-glassful. She found it agreeable. Soon afterwards her appetite improved, she began to feel stronger and better, and she is now quite well and plump. In another case of advanced phthisis, where the loathing of cod-liver oil was insuperable, the malt-tea was given; and the patient, when asked with regard to its effects, shortly replied, "I like it; it does me good, and makes me eat." Malt-tea could be made by infusing one ounce of bruised malt in a pint of boiling water for two hours, and then pouring off the clear liquor for use. Great stress should be laid upon its being made fresh every day, and used fresh, lest any fermentation should take place. Water took up 66 per cent. of solid extract from good malted barley, and was rich in starch, sugar, and the phosphates; it therefore contained all the elements of a nutritious diet. Crushed malt cost very little, and could be readily obtained. In conclusion, the author did not claim any originality in the use of malt, but only desired to bring before the profession this one form of using it.

The President, Mr. Malcolm Morris, Mr. Osman Vincent, Dr. Morton, Mr. Eastes, and others, joined in the discussion; and Dr. Stewart replied.

CAUTION IN THE USE OF IODOFORM.—In a communication to the *New York Med. Record*, No. 12, Dr. Sands, after taking a general review of the results of the employment of iodoform, and describing two cases of mania that had resulted from its use in his own practice, goes on to say that it has not as yet been ascertained what amount of it is necessary to induce poisoning. Susceptibility to its action varies greatly, for while in many cases two or three ounces have been applied to extensive open wounds immediately after operations, in others half an ounce and upwards may induce attacks of mania, and even a gramme give rise to slight nervous disturbance. In many of the German cases excessive quantities have been applied, sometimes amounting to five or six ounces. The effects depend much upon the extent of absorbing surface and the recency of the wound. Old persons are especially liable to suffer, while children seem to be much less so. "It is already apparent that the sanguine expectations at first entertained regarding the value of this antiseptic cannot be fully realised, and that in the present state of our knowledge iodoform should be employed with great caution, and in such a manner that it can be readily removed from the wound in case symptoms of poisoning should supervene. It is certainly hazardous to fill a large fresh wound with the powder, which may penetrate the meshes of the connective tissue so that it cannot be washed out. By employing it in the minimum quantity it will produce the desired effect, and by learning, perhaps, to recognise beforehand the class of cases that are peculiarly susceptible to its deleterious influence, we may yet be enabled to use with safety this antiseptic, which, in many respects, is the most valuable that has ever been introduced into surgical practice."

OBITUARY.

**JAMES SPENCE, F.R.C.S. EDIN., F.R.S.E., SURGEON-
IN-ORDINARY TO H.M. THE QUEEN FOR SCOTLAND.**

JAMES SPENCE was the son of a merchant in Edinburgh, and was born there in 1812. He received the greater part of his elementary education at Galashiels, and afterwards passed to the High School of Edinburgh. His first connexion with the medical profession was an indirect one, for at an early age he was apprenticed to a firm of chemists and druggists in the New Town. This, as has often happened in similar circumstances, developed in him a desire for a closer intimacy with medicine, and after studying in Edinburgh and Paris, he obtained the Licence of the Royal College of Surgeons of Edinburgh in 1832. He next served for some three years as ship surgeon in the Indian Navy, and on his return to Edinburgh his knowledge of anatomy, and his desire to perfect himself in its practical details, led to his being appointed Demonstrator, under *Monro tertius*, in the University. The dissections which he made then, and subsequently when he, with Handyside and Lonsdale, taught anatomy in the Extramural School, are well known in Edinburgh, and, placed as they are in the University and College of Surgeons' museums, they remain as a testimony to the zealous care and accuracy with which he did his work.

In 1849 he obtained, by examination, the Fellowship of the Royal College of Surgeons of Edinburgh, and having been appointed first Assistant and then Acting Surgeon to the Infirmary, he in 1855 became Lecturer on Surgery at the College of Surgeons. There he remained till 1864, when, on the death of Professor Miller, he was appointed by the Curators to the Chair of Surgery in the University, Professor Lister being the rival candidate.

As a professor and teacher Mr. Spence was regarded with the greatest respect and affection by all connected with the medical school. They knew how earnestly and conscientiously he had worked at his profession, and in the wards and theatres they were witnesses of the accuracy of his diagnosis and the soundness of his treatment. They knew, too, that though his manner was somewhat cold and distant he was one of the most kind-hearted and considerate of men. By the profession he has been looked upon since the death of Syme as the leading surgeon, and no opinion in consultation was more sought after or more highly esteemed.

In his surgical practice he was eminently conservative, and many of his old pupils will bear in mind the attitude which he maintained when the somewhat complicated dressings required by the antiseptic theory of treatment made their appearance in the Infirmary. To the end Spence maintained that the simple methods of the older school were preferable, and the statistics of his work prove that, in his hands at any rate, nothing has been more efficient.

He contributed largely to the various medical and surgical journals, and in his "Lectures on Surgery," the third edition of which is now being issued, he has given the profession the results of a long and valuable experience.

Besides acting on the staff of the Royal Infirmary, Professor Spence held the offices of Consulting Surgeon to the Sick Children's Hospital, the Old Town Dispensary, the Dental Dispensary, and the Leith Hospital. He was President of the Royal College of Surgeons of Edinburgh from 1867 to 1869; in February, 1881, he was appointed Representative of his College in the General Medical Council, in the place of the late Dr. Andrew Wood; and since 1865 he has been Surgeon-in-Ordinary to the Queen in Scotland. In 1875, when the British Medical Association held its meeting in Edinburgh, he delivered the Address on Surgery. In proof of the esteem with which he was held by the profession generally, he was presented last year with his portrait, the artist being Mr. James Irvine. A replica was handed over at the same time to the Royal College of Surgeons, and an etching by Durand of Paris was given to the subscribers.

Mr. Spence was an elder in St. Paul's Free Church, Edinburgh. In politics his tendencies were, as in surgery—Conservative. He leaves a widow, five sons, and two daughters, one of the sons, Dr. Fair Spence, having followed his father's profession.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.
—At the usual monthly examinations for the licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, June 5, 6, 7, and 8, the following candidates were successful:—

For the Licence to practise Medicine—

Asher, Morris, Sydney, New South Wales.
Beeston, Joseph Lievesley, Newcastle, New South Wales.
Bond, Joseph Henry, Rathgar, co. Dublin.
Hutchinson, Matthew Maria Louis, New Ross, co. Wexford.
Molony, FitzJames, Tulla, co. Clare.
Rundle, Edmund, Crediton, Devon.
Williamson, Macnamara Morgan, Dublin.

For the Licence to practise Midwifery—

Asher, Morris.	Irwin, Alan Montgomery, Donadea.
Beeston, Joseph Lievesley.	Molony, FitzJames.
Bond, Joseph Henry.	Rundle, Edmund.
Hutchinson, Matthew M. L.	Williamson, Macnamara Morgan.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership, pursuant to the provisions of the Supplemental Charter of 1878, have been duly admitted Members of the College:—

O'Neill, Laurence Joseph, 1877, St. Donlough's, co. Dublin.
Knott, John Freeman, 1877, Dublin.
Poett, Patrick Matthias, 1878, Rathgar, co. Dublin.

(The numerals appended to the names indicate the year in which the Licence to practise Medicine was obtained.)

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on June 8:—

Faulkner, Henry William, Kennington.
Gettings, John Salter, Chase Lodge, near Walsall.
Littlewood, John Oseroff, Guy's Hospital.
Macphail, Archibald Lamont, Glasgow.
Waddell, William, Belfast.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Vinrace, Edward Dennis, Queen's College, Birmingham.
West, John Arthur, King's College, London.
Dowsing, Herbert Leopold, St. Bartholomew's Hospital.
Middleton-Gavey, E. Herbert, St. Bartholomew's Hospital.
Smith, James Edward, Charing-cross Hospital.

BIRTHS.

BOWES.—On June 2, the wife of J. Ireland Bowes, M.R.C.S., Medical Superintendent of the Wilts County Asylum, of a son.
BROWNS.—On June 6 at Head-street, Colchester, the wife of G. Brown, M.D., of a son.
MOORE.—June 13, at 40, Fitzwilliam-square West, Dublin, the wife of John William Moore M.D., Vice-President of the King and Queen's College of Physicians, of a son.
MORGAN.—On May 16, at Landour, Mussoorie, India, the wife of Surgeon-Major Jerome Morgan, A.M.D., of a daughter.
NORTON.—On June 8, at 63, Upper Gloucester-place, N.W., the wife of G. Everitt Norton, M.R.C.S., late of Upper Baker-street, W., of a son.

MARRIAGES.

BLOMFIELD—HARRISON.—On June 7, at Turnham Green, the Rev. Alfred Charles Edward, son of T. Blomfield, M.D., to Elizabeth Anne, daughter of Henry Harrison, M.R.C.S., late of Upper Montague-street, W.
CANE—BARRELL.—On June 8, at Bootle, Liverpool, Howard Cane, M.D., L.R.C.P., of The Gables, Belvedere, Kent, to Alice Jane, daughter of John Barrell, Esq.
CHAMPION—ALDRICH.—On June 7, at Mildenhall, the Rev. Francis Beresford Champion, vicar of Edale, Derbyshire, to Annie Maude, daughter of Pelham Aldrich, M.R.C.S., of Mildenhall.
EDWARDS—BROMLEY.—On June 7, at Chester, James Edwards, M.R.C.S., of Elm Bank, Anfield, Liverpool, to Ellen, daughter of Urias Bromley, Esq., of The Old Hall, Chester.
FULTON—BOODLE.—At South Hampstead, William, son of the late Alexander Fulton, Esq., of Glasgow, to Beatrice Mary, daughter of Robert H. Boodle, M.R.C.S., late of Chilcompton, Somersetshire.
MARTIN—WHITE.—On June 8, at Limerick, John Wise Martin, M.D. of Brunswick-street, Sheffield, to Louise Helen, daughter of William H. White, Esq., of Richmond, Limerick.
OWEN—CLAYTON.—On June 7, at Brymbo, Denbighshire, Edmund Owen, F.R.C.S., of 49, Seymour-street, Portman-square, to Annie, daughter of Thomas Clayton, Esq., of Bryn Mally, Wrexham.
SNAPE—BARLOW.—On June 8, at Crouch End, William Cadman Harries Snape, of Nottingham, son of Richard Forth Snape, F.R.C.S., of Bolton, to Louisa, daughter of the late John Nathanael Barlow, M.R.C.S., of Writtle, Essex.

WARD—YORKE.—On February 18, at Newcastle, Natal, South Africa, Charles Ward, L.R.C.P., M.R.C.S., etc., to Dorothea Agnes, daughter of the late Captain James Charles Yorke, 5th Dragoon Guards.

WITZ—HICKS.—On June 1, at Easingwold. J. F. Witz, M.R.C.S., to Anne, daughter of E. B. Hicks, M.R.C.S., of Easingwold.

DEATHS.

ANDERSON, WILLIAM CHARLES, M.R.C.S., of Stonegate, York, on June 7, aged 74.

CROWE, JOHN WAINWRIGHT, M.R.C.S., of Ennis, county Clare, Ireland, at 9, Eliot-place, Blackheath, on June 9.

DUKE, THOMAS OLIVER, M.R.C.S., L.S.A., at 87, High-street, Clapham, on June 5, aged 64.

KEOGH, H. F., son of Surgeon A. Keogh, M.D., A.M.D., at Cedar Park Prospect, Bermuda, on May 23.

MUMFORD, GEORGE, son of William Lugar Mumford, M.D., at 1, Bartlett's-passage, Holborn-circus, on June 8.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon. Candidates must possess registered surgical and medical qualifications. Applications, with testimonials, stating age, etc., to be sent to the Chairman of the Weekly Board on or before June 19.

CHILDREN'S HOSPITAL, BIRMINGHAM.—Resident Medical Officer and an Assistant Resident Medical Officer. Candidates must be registered members of the medical profession, in accordance with the Act 21 Vic., cap. 90, and their certificate of registration, with their testimonials, must be sent to the Secretary, Children's Hospital, Steelhouse-lane, Birmingham, not later than June 20.

CUMBERLAND INFIRMARY, CARLISLE.—House-Surgeon. Applications and testimonials to be sent to the Secretary, Joseph Lowthian (from whom all particulars can be obtained), on or before June 27.

EVELINA HOSPITAL FOR SICK CHILDREN, SOUTHWARK-BRIDGE-ROAD, S.E.—House-Surgeon. (For particulars see Advertisement.)

FLINTSHIRE DISPENSARY.—House-Surgeon. Candidates' names must appear upon the Medical Register as being possessed of medical and surgical qualifications; they must be acquainted with the Welsh language; and are prohibited from engaging in private practice. Applications, with testimonials of good moral character, etc., to be sent to the Hon. Sec., William Thos. Cole, on or before June 20. The election takes place on June 28.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, LONDON, N.—House-Surgeon. (For particulars see Advertisement.)

HALIFAX INFIRMARY.—Assistant House-Surgeon. Candidates must be doubly qualified and registered. Applications, with testimonials of ability and moral character, to be sent to the Senior Physician of the Medical Staff on or before June 20.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, MOUNT VERNON, HAMPSHIRE.—Physician. (For particulars see Advertisement.)

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET, LONDON, W.C.—Assistant-Physician. (For particulars see Advertisement.)

HOSPITAL FOR WOMEN, SOHO-SQUARE.—House-Physician. (For particulars see Advertisement.)

INFIRMARY OF THE CITY OF LONDON UNION.—Assistant Medical Officer and Dispenser. (For particulars see Advertisement.)

ROYAL UNITED HOSPITAL, BATH.—Resident Medical Officer. (For particulars see Advertisement.)

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, 54, BERNERS-STREET, W.—House-Surgeon. Applications, with copies of testimonials, to be sent to the Secretary, W. E. Scott, on or before June 21.

UNIVERSITY COLLEGE, LONDON.—Resident Medical Officer. (For particulars see Advertisement.)

YORK COUNTY HOSPITAL.—Honorary Physician. Candidates must be graduates in medicine of one of the universities recognised by the Medical Council of the United Kingdom, and Fellows or Members of the Royal College of Physicians of London, or Fellows of the Royal College of Physicians of Edinburgh; they must not practise or be connected in partnership with anyone who practises surgery, pharmacy, or midwifery. Applications, with diplomas and testimonials, to be sent to the Secretary, Robert Holtby, on or before June 24. Election on July 11.

SETTLE UNION AND PAROCHIAL MEDICAL SERVICE.

** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Barnet Union.—The Third District is vacant by the death of Mr. Charles Edward Little: area 5470; population 1750; salary £80 10s. per annum.

Maldon Union.—Mr. C. de Lisle Brock has resigned the Wickham Bishops District: area 4728; population 1025; salary £25 per annum.

Malmesbury Union.—Mr. J. C. S. Jennings has resigned the Third District: area 11,855; population 2561; salary £65 per annum.

Malton Union.—Mr. Henry Dodd has resigned the Rillington District: area 22,970; population 2677; salary £30 per annum.

Settle Union.—Dr. B. H. Dale has resigned the Arncliffe District: area 17,998; population 362; salary £5 per annum.

Tavistock Union.—Mr. Gilbert William Northey has resigned the Milton Abbot District: area 47,010; population 6934; salary £55 per annum. The Buckland District is vacant by the death of Mr. Edward Joseph Curran: area 6910; population 1263; salary £40 per annum. Mr. William Cornish Northey has resigned the Tavistock District and the Workhouse: area 13,986; population 7781; salary £55 per annum; salary for Workhouse £35 per annum.

APPOINTMENTS.

Bath Union.—George E. Lawrence, L.R.C.P. Lond., M.R.C.S. Eng., to the Workhouse.

Drayton Union.—Arthur R. F. Exham, M.B., B.Ch. Dub., to the Workhouse.

Epsom Union.—Allan MacLean, L.R.C.S. Edin., L.S.A., to the Leatherhead and Fetcham District.

Llanfyllin Union.—Frederick F. Jones, M.R.C.S. Eng., L.S.A., to the Workhouse.

Mere Union.—Henry Plater Long, M.R.C.S. and L.S.A. Lond., to the First District and the Workhouse.

Morpeth Union.—Thomas Proudfoot, B.M. and M.C. Edin., to the Sixth District.

Wycombe Union.—Herbert G. Lee, M.R.C.S. Eng., L.S.A., M.D. St. And., to the Ninth District.

VIABILITY OF SIX-MONTHS CHILDREN.—In relation to the birth of an infant, in Prof. Spaeth's clinic, weighing 900 grammes, which corresponds to the sixth and a half month of pregnancy, he observed that his large experience enabled him to state that infants born in the sixth lunar month may by great care be reared. Their small power of producing heat requires that they should be carefully wrapped in wadding; and on account of the weakness of their digestive powers breast-milk with as little casein as possible should be administered to them. As the milk of a woman gets richer in this the longer she suckles, young women who have recently been confined should be chosen as nurses. The nurse, too, should have long nipples, that they may be passed deep into the mouth so as to facilitate the access of the milk to the stomach. Managed in this way Prof. Spaeth has known a six-months child surpass its brothers, born at full term, in eventual development.—*Allg. Wien. Med. Zeit.*, May 16.

PROFESSORS VON LANGENBECK AND EULENBURG.—Prof. von Langenbeck, the head of German surgery, although still in possession of all his corporeal and mental vigour and elasticity, has, the German journals announce, definitely resigned his professorship, and will in future reside at his beautiful abode at Wiesbaden. Prof. Eulenburg has resigned his professorship at Greifswald with the intention of devoting himself at Berlin to the treatment of diseases of the nervous system.—*Petersb. Med. Woch.*, June 3.

APPOINTMENTS FOR THE WEEK.

June 17. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

19. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. Hutchinson "On Temperament, Idiosyncrasy, and Diathesis in Relation to Surgical Disease." Lecture V.

20. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

STATISTICAL SOCIETY, 7½ p.m. Dr. W. A. Guy, "On Two Hundred and Fifty Years of Small-Pox in London."

21. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Tatham.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. Hutchinson, "On Temperament, Idiosyncrasy, and Diathesis in Relation to Surgical Disease." Lecture VI.

22. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

23. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Mr. Frederic S. Eve, "On Cystic Tumours of the Jaws."

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 10, 1882.

BIRTHS.

Births of Boys, 1247; Girls, 1229; Total, 2476.

Corrected weekly average in the 10 years 1872-81, 2491'0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	728	641	1369
Weekly average of the ten years 1872-81, } corrected to increased population ...	752'1	690'6	1442'7
Deaths of people aged 80 and upwards ...	...	...	47

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small- pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric(or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West	669633	...	14	5	9	10	...	1	...	6
North	905947	1	6	2	3	26	...	3	...	7
Central	282238	...	1	2	1	7	...	...	...	2
East	692738	...	1	2	2	15	...	7	...	7
South	1265927	9	36	8	3	30	...	4	...	6
Total	3816483	10	58	19	18	88	...	15	...	28

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	29'533 in.
Mean temperature ... ..	...	...	...	...	...	56'2°
Highest point of thermometer ... ..	...	...	...	...	...	70'5°
Lowest point of thermometer ... ..	...	...	...	...	...	47'9°
Mean dew-point temperature ... ..	...	...	...	...	...	51'0°
General direction of wind ... ..	...	...	...	...	...	S.W.
Whole amount of rain in the week ... ..	...	...	...	...	...	1'08 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 10, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending June 10.	Deaths Registered during the week ending June 10.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London	3893272	2476	1369	18'3	70'5	47'9	56'2	13'44	1'08	2'74
Brighton	109595	61	42	20'0	71'0	49'2	57'6	14'23	0'58	1'47
Portsmouth	129916	75	63	25'3	...	...	...	...	...	...
Norwich	83821	50	23	13'5	...	...	...	...	...	...
Plymouth	74449	58	23	16'1	65'3	48'0	55'6	13'12	1'70	4'32
Bristol	210134	141	72	17'9	65'0	49'0	54'2	12'33	1'63	4'14
Wolverhampton	76756	57	32	21'8	65'7	44'0	52'7	11'60	2'59	6'58
Birmingham	408532	287	150	19'2	...	...	...	...	...	...
Leicester	126275	112	47	19'4	...	...	...	...	...	...
Nottingham	193573	147	75	20'2	74'1	45'5	55'7	13'17	2'01	5'11
Derby	83587	60	28	17'5	...	...	...	...	...	...
Birkenhead	86592	72	33	19'9	...	...	...	...	...	...
Liverpool	560377	394	257	23'9	...	...	...	...	...	...
Bolton	106767	90	47	23'0	...	...	...	...	...	...
Manchester	340211	279	188	28'8	...	...	...	...	...	...
Salford	184004	159	77	21'8	...	...	...	...	...	...
Oldham	115572	66	48	21'7	...	...	...	...	...	...
Blackburn	106460	101	38	18'6	...	...	...	...	...	...
Preston	97656	87	47	25'1	...	...	...	...	...	...
Huddersfield	83418	63	41	25'6	...	...	...	...	...	...
Halifax	74713	40	32	22'3	...	...	...	...	...	...
Bradford	200158	141	82	21'4	65'9	48'0	54'8	12'67	1'28	3'25
Leeds	315998	248	113	18'7	67'0	49'0	55'5	13'06	1'51	3'84
Sheffield	290516	233	101	18'1	64'0	48'0	54'1	12'28	1'70	4'32
Hull	158814	94	55	18'1	68'0	45'0	54'0	12'22	1'92	4'88
Sunderland	119065	108	42	18'4	...	...	...	...	...	...
Newcastle	147626	100	55	19'4	...	...	...	...	...	...
Cardiff	86724	78	24	14'4	...	...	...	...	...	...
For 28 towns	8469571	5877	3204	19'7	74'1	44'0	55'0	12'78	1'60	4'06
Edinburgh	232440	173	94	21'1	65'8	39'6	53'8	12'12	0'69	1'75
Glasgow	514048	415	239	24'3	69'0	43'0	55'6	13'12	1'15	2'92
Dublin	348293	179	167	25'0	66'5	45'9	54'9	12'72	0'64	1'63

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29'53 in. The highest reading was 29'71 in. on Thursday morning, and the lowest 29'26 in. on Friday at noon.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

A Fellow, Wolverhampton.—The following are the provincial members of the Council of the College of Surgeons:—Dr. G. M. Humphry, Cambridge; Mr. Alfred Baker, Birmingham; Mr. Edward Lund, Manchester; Mr. William Cadge, Norwich. Mr. Luther Holden also, ex-President, now resides in the country, at Ipswich.

Open Spaces.—According to the last Report of the Metropolitan Board of Works, London is somewhat better off in the way of open spaces than is generally supposed. Altogether the Board has under its control about two and a half square miles of parks and recreation-grounds. These are scattered all over the metropolis and its outskirts, from Finsbury-park to Wormwood Scrubs, and from Hampstead Heath to Clapham Common.

The Cleator Moor Water-Supply.—After considerable agitation on the part of the inhabitants it has been decided to proceed with the construction of a reservoir for the town at Meadley Farm, to hold 40,000,000 gallons of water. For a long time past the population have been greatly inconvenienced on account of the inadequate water-supply. The population of Cleator Moor exceeds 11,000.

A Sad End.—Dr. Samuel Argent, of Oliver-street, Birmingham, has committed suicide by taking poison. Deceased had lately indulged in intemperate habits, and his practice had been neglected. He lost an appointment as surgeon to a benefit society a short time ago, and being in straitened circumstances, became very depressed. He was found leaning over a table in the front room of his house, quite dead. A man named Dixon resided with deceased, and upon a slate on the table was written, "Good-bye, Dixon; I have taken an ounce of hydrocyanic acid."

St. Peter's Hospital for Stone.—The Duke of Albany has consented to open the new Hospital in Henrietta-street, Covent-garden, on St. Peter's Day, the 29th instant.

A Worthy Example.—M. Dumas, Perpetual Secretary to the French Academy of Sciences, has received instructions from the Minister of the Interior to make out a list of all the savants who have died or been maimed while performing experiments or making researches in the interests of science. The intention of the Government is to grant pensions to the widows and children of these savants, or to those who have been injured.

Wrexham Infirmary.—The accounts show an increase in the income during the past year over the previous year. To enlarge the usefulness of the institution it is proposed to open a new dispensing department.

Goat's Milk.—Every morning between seven and eight o'clock may be seen in Regent-street and the side streets adjoining, two Swiss herdsmen, driving a small herd of eight or ten goats, and blowing a small whistle to acquaint the inhabitants that they may have a little tinful of fresh goat's milk for a penny.

An Action for Libelling a Certain Drainage.—An action brought against the Chairman of the Local Board of Health for the district of Tottenham by a builder resident at that place, to recover damages to the extent of £5000, was heard last week at Westminster before Mr. Justice Stephen. It was alleged the defendant falsely and maliciously spoke and published certain words with respect to the drainage on the Marie House Estate, on which the plaintiff had built some sixty houses. The defendant denied that he spoke the words attributed to him, and in the alternative pleaded that, if he did so, they were spoken without malice in his capacity as Chairman of the Board, and they related to matters which it was his duty to discuss and examine. A verdict for the defendant was returned. Judgment accordingly.

Ralph N.—The Social Science Congress will be held this year at Nottingham, and commence on September 20.

Raspberry(?) Jam.—Two tradesmen have each been fined, at the Westminster Police-court, 20s. and costs for selling as raspberry jam a mixture in which Dr. Dupré, on analysis, showed that there were no raspberries at all. According to him the mixture chiefly consisted of gooseberries, black currants, etc., with the addition of seeds not identified, and coloured by rosaniline (one of the coal-tar colours), the seeds and colouring matter having been added to give the mixture the appearance of the genuine article.

The St. Gothard Tunnel.—The Italian Government are organising for the navvies who are employed in the Tunnel, and still suffering from anæmia and other ailments arising from the bad air and high temperature in which they are compelled to work, a sanatorium for their reception high up on the St. Gothard—pure mountain air being the most efficient remedy for diseases of this class.

A New Seaside Town.—Sir Edward Watkin is about to build a town and create a fashionable seaside resort. Extensive improvements are to be made along the flats between Great Grimsby and Cleethorpes, and along the coast of Humberston.

N. S. P.—It was Ducamp who reported quite an epidemic of lead-poisoning in Paris from bread. It was caused by a baker using old painted wood for heating the ovens. The lead carbonate in the paint was converted into oxide, which was condensed upon the oven-plates, where it came in contact with the loaves of bread.

Noxious Gases.—At Southwark Police-court a firm of manufacturers of gln and size, of Swan-street, Bermondsey New-road, have been summoned for failing to provide, in spite of several warnings, proper receptacles for the gases which are generated in the manufactory, and for non-compliance with the provisions of the Act of Parliament. For two years past the sanitary condition of the premises had formed the subject of complaint. The defence was that alterations were now in progress which would meet the requirements of the Act. The magistrate, however, imposed penalties amounting to £7. After evading the Act of Parliament (notwithstanding being several times warned) for two years, the infliction of such an amercement is scarcely a vindication of the law, or likely to act as a deterrent to others engaged in equally offensive trades.

Female Aid.—At a meeting held at Sheffield to urge the claims of the Royal Albert Asylum for Idiots and Imbeciles, Lancaster, a resolution was adopted for the formation of ladies' associations. Donations amounting to £481 were announced at the conclusion of the meeting.

Dobbs v. The Grand Junction Waterworks Company.—The Paddington Vestry has passed a resolution congratulating Mr. Archibald E. Dobbs upon the success which, up to the present time, has attended his efforts to restrain this Company from basing their charge for water upon the gross value as set forth in the Valuation (Metropolis) Act, 1869, and (a much more practical approval) have authorised their Clerk to assist him in bringing to a successful issue any further proceedings which may be taken in the matter. Several gentlemen have consented to act as treasurers of a "Water Customers' Defence Fund."

Patrick.—Although our report last week of the Royal Medical Benevolent Fund Society, Ireland, does not allude to the fact, we are enabled to answer your inquiry by the remarks made at the recent annual meeting by Dr. Grimshaw, Registrar-General, who stated that not more than one-third of the members of the profession contributed to the Fund.

Wyatt.—The surplus of the Cotton Famine Fund, raised during the distress in 1862-65, in excess of the claims of the suffering operatives, was subsequently dealt with under a scheme issued by the Charity Commissioners, and became "The Cotton Districts Convalescent Fund," administered by a Board of Governors, the object of the scheme being to provide and maintain homes for convalescent patients from the hospitals of the interested counties. One has already been opened at Buxton, and another is in course of erection at Southport—the former an addition only to an existing building, whilst the latter is an entirely new structure.

Health of Margate.—The Medical Officer of Health of this town presented to the Town Council last week his annual report, which showed that the death-rate of the borough was only 13.75 per 1000.

Vaccination, Scotland.—Dr. Robertson, the Registrar-General for Scotland, in his annual report, draws attention to the fact that only four deaths from small-pox were recorded throughout the year. "This," he adds, "is a most satisfactory circumstance, for which we have no doubt in a great measure to thank an excellent Vaccination Act, and the common sense of our people, which does not dispose them to receive, without qualification, the statements of the anti-vaccinators."

The Law Vindicated.—A butcher at Cardiff has been sent to prison for a month without the option of a fine for exposing diseased mutton in his shop for sale. He had been convicted previously for a similar offence.

Public Baths, Uttroxteter.—The question of erecting public baths in this town has received considerable attention, but so far as concerned the public, the matter ended with simply discussing the subject. But private philanthropy has stepped in, and baths are now in course of erection upon the premises of Mr. Thomas Barnes, of Slade House; and, as that gentleman has stated, his object is solely that of conferring a benefit upon his fellow-townsmen, and not for gain. He deserves the commendation and assistance of the inhabitants in his praiseworthy object.

Nesbitt.—The Bill to enable the Guardians of the poor of St. Pancras to acquire lands and premises for the purpose of extending the workhouse has passed the House of Lords, and it is now before the House of Commons.

Obscure to a Layman.—A contemporary says a certain London medical officer reported to a board of guardians lately that half the children in certain schools were suffering from "granular conjunctivitis." This seemed rather obscure to one of his hearers, who asked for an explanation. "In other words, sir, it is hypertrophy of the mucous membrane of the conjunctivæ," replied the doctor with some gravity.

Our Artisans.—The prize of £5 offered by the Duke of Westminster in connexion with the competition following the lectures delivered to working plumbers, for the National Health Society, has been awarded to George Taylor, for workmanship. In consequence of the small number of competitors, and the little ability shown, the other prizes are withheld for the present.

A Total Abstainer.—Weston, the celebrated pedestrian, who spoke at a meeting at Eastbourne in connexion with the Blue Ribbon Army Mission, in the course of a very humorous speech, said he had walked 53,000 miles upon total abstinence, and instead of being the utter failure, physically speaking, his friends predicted, he was better in health than he had ever been in his life.

Quinine from the West Indies.—Governor Sir Anthony Musgrave, in his report, just published, directs attention to the fact that this year the article which used to be known in commerce as Jesuit's or "Peruvian" bark, appears for the first time in the list of West Indian exports. The bark sent away during the year amounted to 23,981 lbs., of the stated value of £7302, was chiefly the produce of the Government plantations. Sir A. Musgrave remarks that a great impetus has been given to the cultivation of this valuable tree by the success attending the experiment undertaken by Government, and it may be confidently hoped that in the course of a few years the export of cinchona bark will rank high on the list of exports.

A Polite Answer.—Rowland Hill rode a great deal, and by exercise preserved vigorous health. On one occasion, when asked by a medical friend what physician and apothecary he employed, to be always so well, he replied, "My physician has been a horse, and my apothecary an ass."

Physicians' Fees, New York.—The *Irish Times* gives the following information on this subject:—"As a rule the New York physician receives as much for an office consultation as he does for a visit to the patient at the patient's house. The practitioner of good standing and with plenty to do expects and charges five dollars a visit to people of ample means. This corresponds about exactly with the traditional London honorarium. He charges four dollars a visit to well-to-do but not wealthy folks, three dollars to those who have to pay some attention to economy of expenditures, and a dollar to domestics. This practice is nearly universal. A physician who has any reputation as a specialist may charge double. Whether this variation in prices is determined by a spirit of philanthropy or by a reluctance to lose the business brought by any class of customers, it works very nicely, illustrating one of the most striking laws of political economy. Of a very eminent physician up town it is customary to say, 'Go to Dr. —. He will either charge nothing or five thousand dollars for curing you.'"

Equal to the Occasion.—"Do you mean to tell us," said a lawyer to a doctor, whom he was cross-examining, "that if a person lived in a horse-pond, it would not be injurious to him?" "I think not," said the doctor, "if he lived for sixty or seventy years in it."

COMMUNICATIONS have been received from—

Sir CHARLES TREVELYAN, London; Mr. J. STECHELBACH, London; Mr. T. S. CARTER, Leeds; THE SECRETARY OF THE SOCIETY OF ARTS, London; THE SECRETARY OF THE CHARITY ORGANISATION SOCIETY, London; Mr. J. E. JANVRIN, New York; MISS MARY KATTE, Bermondsey; THE SECRETARY OF THE LONDON FEVER HOSPITAL; Mr. G. COWELL, London; Dr. F. BATEMAN, Norwich; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Mr. J. CHATTO, London; Dr. CARTER, Liverpool; THE SECRETARY OF THE CHINESE IMPERIAL MARITIME CUSTOMS, London; Dr. ANDREW CLARK, London; MESSRS. DINNEFORD and Co., London; Dr. GILLESPIE, St. Thomas's Hospital, London; THE SECRETARY OF THE STATISTICAL SOCIETY, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; THE CLERK OF THE METROPOLITAN ASYLUMS BOARD, London; THE SECRETARY OF ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, London; Dr. ANGEL MONEY, London; THE SECRETARY OF THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.

BOOKS, ETC., RECEIVED—

Sessional Proceedings of the National Association for the Promotion of Social Science—A Contribution to the Subject of Nerve-Stretching, by W. J. Morton, M.D.—Annual Report of the London Temperance Hospital—Remarks on Certain Medical Principles and Publications, by Dr. Joseph Hamernik, of Prague—Report on the Sanitary Condition of the Whitechapel District for the Quarter ended April 1, 1882—The Diagnosis of Pott's Disease of the Spine, by V. P. Gibney, A.M., M.D.—Quatrième Congrès International d'Hygiène à Genève du 4 au 9 Septembre, 1882—On In-knee Deviation, by W. J. Little, M.D., F.R.C.P.—Ovarian and Uterine Tumours, by T. Spencer Wells—Clinical Lectures on Diseases of the Urinary Organs, by Sir Henry Thompson—The Life of Charles Darwin, with British Opinion of Evolution—Sanitary Houses, by F. A. Bond, M.B.—Notes on Books, by Messrs. Longmans and Co.—The Idiot, by Frederick Bateman, M.D., F.R.C.P.—Rupture of the Eyeball in its Posterior Hemisphere from a Blow on the Face, by Julian J. Chisolm, M.D., of Baltimore—Sanitation, not Vaccination, by William Tebb—Annual Report of the Stirling District Lunacy Board.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Le Concours Médical—Ciencias Medicas—Revista de Medicina—The Philanthropist—Carlisle Journal, June 9—Rocky Mountain Medical Times—Observer, Australia, April 20—Melbourne Bulletin, April 21—Physician and Surgeon—Weekly Times, Melbourne, April 29—Citizen June 10—Dublin Medical Journal—City Press, June 10—Weekblad—Canada Lancet—La Oftalmologia Practica—Revue de Chirurgie—Revue de Médecine—Journal of the Vigilance Association—Gazzetta degli Ospitali—Medical News.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON A REMARKABLE CASE OF LUPUS
ERYTHEMATOSUS.

By JONATHAN HUTCHINSON, F.R.C.S.,

Senior Surgeon to the London Hospital; Surgeon to the Hospital for
Skin Diseases; Professor of Surgery and Pathology to the
Royal College of Surgeons.

GENTLEMEN,—The subject of our lecture, Mrs. Lucy B., was sent to me eight months ago by Dr. Mackey, of Dunstable. She brought with her a letter, giving a full description of her case and of the various measures of treatment which had been already used without material advantage. Her case proved of very unusual interest as an example of erythematous lupus spreading rapidly and widely, and subsequently undergoing cure with almost equal rapidity and to a most unusual extent. What the means of cure were, it is difficult to say. Her recovery took place after she left the hospital; for neither under Dr. Mackey's treatment before she was admitted, nor mine during the six weeks that she remained in, did we obtain any material benefit. As soon as she returned home, however, improvement began, and between April and November she got almost well. She was then using a lotion of glycerine and lead, and taking iron. So extensive was the erythema, and so nearly complete the cure, that it might even be questioned whether the diagnosis was correct. That it was so, apart from the conditions which I shall describe, was, I think, proved by the fact that scars have been left on the temple, forehead, and scalp, and a scar round a group of comedones in the concha of each ear. The case is probably a link of connexion between erythematous lupus and psoriasis, and possibly connects both with erythema multiforme.

I will read to you first the notes which I took when she was first admitted (February 25, 1881):—

Mrs. B., aged thirty-four; has been married eleven years. Her father died of phthisis, and a brother also; another brother is now ill with the same. Her face is covered with large bat's-wing patches of well-characterised lupus erythematosus. The nose, as usual, forms the body of the bat, and is rough and red. From it extend two wings, which cover the central regions of the cheeks; then occurs a narrow band of healthy skin, and outside this a very large patch, which covers all the region of the cheek in front of the ear. Both ears are affected. All the patches are symmetrical, and near their margins are several small detached islands. The upper lip shows patches which do not join any others, and which, without extending upwards into the nostrils, pass downwards upon the prolabium. A large patch covers the upper part of the forehead, and there are numerous patches on the scalp.

A large patch, as big as the outspread hand, and consisting of smaller discs placed in juxtaposition, is found in the middle of the back, just between the shoulder-blades. This is the only patch on the trunk.

Her hands and feet are extensively affected. The palms are red and dry, rough in some parts, and smooth and polished in others. Dusky patches extend up the sides of the fingers. On the backs of the hands are many small red discs, abruptly margined, a little raised, and very slightly scaly. The lower part of the forehead and the eyelid regions are free, and so also are the chin and the neck.

Her history is that the first patch came on the scalp three or four years ago, but those on the face only six months ago. Her hands have not been affected more than three months. On the head the disease began on the forehead next after the scalp. The rapidity with which the eruption has spread during the last few months is a remarkable feature in the case.

The conditions in most parts are very characteristic, the patches being of a dusky red, very abruptly margined, and rough and slightly scaly on the surface. In a few places indistinct scars have been left.

The patient has been engaged in waiting in a small shop,

and often exposed to cold and draught. She used to suffer much from flatulence and spasms. She is thin and has lost flesh much of late. She presents a decidedly phthisical look, but no signs of lung-disease. She considers that her dyspepsia has been better since the eruption came out.

In extent and rapidity of development the eruption seems to show an alliance with psoriasis. The patches on the backs of the hands might easily be mistaken for psoriasis, but they have no true scale-crusts. Some of the patches on the scalp and forehead are slightly eczematous.

From the date of the above note (February 25) to April 12, Mrs. B. remained in the hospital and kept her bed. Her case excited much interest, and was frequently the subject of clinical comment. We administered arsenic, and tried applications of coal-tar and chrysophanic acid to the affected parts. They, as is often the case, seemed to spread the erythema, and no material good was done. At one time we used the chrysophanic acid to one side of the face and the tar to the other, the former irritating the most. On April 12 she left at her own request, and I saw no more of her until November 3. During the interval she had been attending as an out-patient under Mr. Tay's care, and had been using a lotion of lead and glycerine, and taking iron. She dated her cure from the day she left the hospital, and thought the country air had done much. We must remember, however, that she had, in the first instance, come to us from the country, and that, as regards local remedies, she had tried, under Dr. Mackey, the glycerole of lead, and other similar applications, without benefit. I am inclined to think that very probably our vigorous treatment when in the hospital had, in some sense, substituted an irritation of its own, and that on its removal the disease subsided. I have several times seen such results from the omission of treatment which, during its continuance, seemed only to make matters worse. Now and then, also, we see a cure follow the giving up of an arsenical course, when no benefit had been obtained during its use. However explained, there is no doubt that a very remarkable cure of a disease usually most intractable had taken place. Let me describe to you her present condition. You would scarcely recognise at first glance that either her hands or face ailed anything. Her face looks simply a little flushed over the cheek-bones. On careful inspection, however, we find that thin scars have been left in several places—on the temples, in the middle of the forehead extending up into the hair, and on the nose. That in the scalp is the most conspicuous, the hair having been destroyed. In the middle of the concha of each ear is a little group of small comedones, and around them there is a scar. The patch is largest in the left ear, but it is seen also in the right. I attach great importance to these little sebaceous groups, since I have never seen them in any disease except lupus erythematosus, or its variety lupus sebaceus. Comedones in this position are common in acne cases, but they are not attended by scar around them, as is the case here; and further, you will observe that our patient is not the subject of acne on the face, and has not a single comedo elsewhere. On the helix of the right ear is a dusky, rough patch. The hands are well, excepting that the nails and adjacent parts are rough. It would not be easy to prove the presence of scars on the hands.

The change in our patient's aspect is most remarkable, and at first sight I did not recognise her. She left us with the face and hands covered with erythematous patches; she returns to us with scarcely a trace of the disease remaining.

I have seen a few other cases very similar to this, and in them also, after a time, a cure took place. The subject of one of them was a woman a little below middle age, and I adduce her case as affording a link between erythematous lupus and common psoriasis. On her face the patches were characteristically those of the former disease. Her hands also were erythematous only, but on her elbows were patches which no one could have distinguished from psoriasis. In her, as in Mrs. B., the extension of the disease had been sudden and rapid, although patches of small extent had been present on the face for years.

As regards the patches in the concha of the ear, I might mention to you several interesting cases. In a lady from New York recently under my care, a patch in this place was her only malady, but it had resisted treatment, and given her much annoyance. I had recently seen two or three such cases with erythematous lupus on the nose and cheeks, and as such I confidently diagnosed this. The

diagnosis was confirmed by the fact that she had on a former occasion been treated by Dr. Duncan Bulkley for patches on the nose. Let me now say a word or two as to a malady which I often speak of—lupus sebaceus. The name is one which I borrowed from the late Mr. Startin. Lupus sebaceus is a variety of lupus erythematosus, and it often complicates it. You may, however, see cases in which there is no erythema whatever. In these the skin of the affected patch becomes simply rough, with the openings of the follicles prominent and usually occupied by little plugs of sebum. Thus the patch consists of a group of small comedones with the intervening epidermis rough and shrivelled, gradually approaching the condition of scar. A scar more or less obvious is always left, and this proves the disease a lupus. Exactly the same localities are affected as in erythematosus lupus. You will see a good illustration of the disease under this latter name in Hebra's Atlas. Whenever you see patches of this kind on the face, look in the ears, and very frequently you will find them in the middle of the concha also. The more typical form of erythematosus lupus affects, as is well known, the ears, but it is usually the helix. Before concluding my lecture, let me ask your attention to the fact that the patient, Mrs. B., gave us a strong history of tendency to consumption in her family. This I have found to be the case in many examples of lupus erythematosus. All forms of lupus are in association with scrofulous tendencies, but, strange as it may seem, I think the erythematosus form, although free from tendency to ulcerate, is more frequently in association with definite history of phthisis in the family than the more common one.

Let me read to you the brief particulars of another case which in several features resembles the one I have commented on. Dr. Tom Robinson, of Guilford-street, sent to me in November, 1880, a very interesting example of lupus erythema. Its subject was Mrs. R., aged thirty-seven, a delicate woman, liable to diarrhoea. Her father had died of "asthma and consumption."

Her face, forehead, and ears were covered with erythematous patches, in parts abruptly margined and ringed, in others consisting of small confluent discs. There was also a large patch in the middle of the scalp, beginning from the skin of the forehead, and extending up the parting of the hair. This patch was slightly crusted and eczematous; all the others were dry.

On the cheeks, where it was very extensive, the patches assumed the bat's-wing form. The congestion was very bright in tint.

It had begun on the nose about fifteen months ago, and gradually extended to the cheeks and ears. It used to burn and itch much. In parts it was dry and scaly, in others the little discs of erythema were quite free from crust.

It was difficult to be certain that it left scars, as it had not quite cleared away from any parts, and was everywhere very superficial. On the scalp the hair had thinned. Its abrupt margins, the formation of little discs, its steadily serpiginous character, and its long persistence, proved it to be lupus.

I am able, through Dr. Robinson's kindness, to give a further report of the results of treatment in this case. The treatment consisted in the application, once a week, of pure carbolic acid to the patches, using in the intervals a lotion of spirits of wine, oxide of zinc, and almond emulsion. As there was great liability to flushing after meals, alkalies with rhubarb and creasote were given internally. The result was that in February, 1882, the disease was almost well. Only a few very small, abruptly margined patches still persisted on the right temple. It was still not easy to demonstrate the existence of scar in those parts from which the erythema had disappeared. On the scalp the skin was glazy, but on the nose, forehead, and cheeks it appeared perfectly sound.

I make no apology for bringing before you the details of these very rare and exceptional cases. Not only do they afford illustrations of pathological processes which claim and will reward our most patient study, but they are, as diseases, in the ordinary acceptance of the word, of great importance to those who suffer from them. Lupus erythematosus as completely disables a young woman from the majority of duties and enjoyments of life, as might do an unreduced dislocation, a hernia, or a cleft palate. The detailed study of the one is as much the duty of the practical surgeon as that of the other.

ORIGINAL COMMUNICATIONS.

CONTRIBUTION TO THE ETIOLOGY OF RICKETS.

By JOHN H. MORGAN, F.R.C.S.

In the debate which took place at the Pathological Society last year on Rickets, it was regretted by the President, Mr. Jonathan Hutchinson, that more pathological evidence had not been produced, and he proceeded to inquire why rickets should not be included with gout, etc., among the "diet diatheses." In a very able speech which followed, Dr. Baxter related the results of an investigation of upwards of a hundred cases of rickets, with especial reference to the age and health of the parents, the number of previous children, and their health, the hygienic surroundings, and the nature and quantity of food administered since birth. I need not prolong this paper by quoting the results of Dr. Baxter's investigation, which are fully reported in the recent volume of the *Pathological Society's Transactions*, but will state the result of an independent inquiry which was conducted at about the same time.

Between July, 1878, and April, 1879, I investigated 150 consecutive cases of rickets which were brought to my outpatient room at the Hospital for Sick Children.

The first question inquired into was the age at which the patients were brought under notice, and although this failed to prove anything definite as to the onset of the disease, it showed the period at which those manifestations of the disease which are most evidenced by the condition of the bones became so evident to the parents as to induce them to bring the child under the notice of a surgeon. An analysis of the ages of these 150 cases shows that the average date of their being brought to me was 33·8 months. The youngest of them was nine months, the eldest eleven years.

Inquiry was next made as to the place which the patient took in the number of the family, and my statistics on this point are curiously coincident with those of Dr. Baxter. In reckoning this table a miscarriage was counted as a previous child.

21·5 per cent.	were	.	.	.	firstborn.
17·7	"	.	.	.	second children.
17	"	.	.	.	third "
14	"	.	.	.	fourth "
3·7	"	.	.	.	fifth "
8·8	"	.	.	.	sixth "
4·8	"	.	.	.	seventh "
3·7	"	.	.	.	eighth "
2	"	.	.	.	ninth "
2·9	"	.	.	.	tenth "
1·5	"	.	.	.	eleventh "
2	"	.	.	.	twelfth "

An attempt was made, by inquiring into the locality in which the parents lived, to ascertain something of the hygienic surroundings in which the child had been nurtured; but beyond showing that cases were brought from all parts of London and its surroundings, nothing definite was ascertainable on this score.

A more satisfactory inquiry was made as to the income of the parents, and by contrasting this with the number of the household, and the presumable outlay for their maintenance, after deducting rent and other necessary expenses, an analysis of the circumstances of each case was possible. By this I found that more than half of the 150 cases came under the heading of "very poor," and among these it might be supposed that the nourishment given to a young child would be scanty in quantity and inferior in quality. The second class of "poor," or those who were better off than the last, but in far from good circumstances, included almost the remainder of my cases; only five coming under the heading of "fair circumstances," the best of the three classes.

I next attempted to divide the cases into classes according to the severity of their symptoms. In the earlier cases that were inquired into, the viscera were carefully examined, but I found that enlargement of the spleen was not by any means constant, and when present did not bear any relation to the external and more palpable symptoms. Enlargement of the liver was still more rare, and its relation to the severity of the cases even more indefinite.

Class I. included those early cases in which the aspect was fairly healthy, and the epiphysial ends of the bones were only slightly enlarged, or where the most evident symptom was some curving of the bones of the legs.

Class II. comprised those in which there was enlargement of the epiphyses of the ribs, the radii, tibiae, and other bones, with the large abdomen, unhealthy aspect, inability to walk, and late dentition; also those cases where the disease was shown mainly by weakness of the ligaments, especially of the spine and of the knees.

Class III. included those in which the disease was well marked and advanced in all the bones of the limbs, the ribs, and the cranium, as well as in other symptoms of its confirmed existence.

The separation of these classes was necessarily a matter of some deliberation, and could only be done after careful examination of all the symptoms; but after a little time it was not difficult to say to which of the three degrees of severity each case should be relegated, although it might not quite accurately conform to the symptoms designated as above. It was a curious fact that the numbers in Classes I. and II. were identical, viz., sixty-eight in each, whilst the most severe cases amounted only to fourteen.

Perhaps the most important of all my tables was that which gave the age of weaning of the child, and this seems to be a factor of no small importance in the etiology of this disease. Of the 150 patients, nineteen had been brought up entirely by hand. Including these, the average age of weaning in the whole number (excepting ten where the age of weaning was not known) was ten months and a half; while, excluding these nineteen, the average age was 12.2 months.

These figures appear to be somewhat contradictory; and it may be argued that if early weaning were a cause of rickets, it would not also result from the prolonged nourishing from the breast. It must be remembered, however, that among the poor weaning is only a relative term, and that the mother in most cases only feeds the child from the breast occasionally, and that it is almost always given some artificial food in addition. Whilst, on the other hand, if food were supplied to a child for upwards of a twelvemonth only from the breast of a poorly fed parent, that in itself might be held sufficient for the appearance of any dyscrasia in the child.

As regards the food which was given, I found that only ten of these children were supplied with milk alone, and that in seventy-six of the remainder the milk was mixed with some amount of starch food; whilst in fifty-nine some form of starch formed the staple on which the child was brought up. Five cases only were unaccounted for under this heading. Although I have not had in view the importance of starch feeding so prominently as Dr. Baxter, these figures are curiously in harmony with those which he has deduced.

One point struck me in this analysis as of some import. Among the patients brought to Great Ormond-street Hospital for Sick Children are no inconsiderable proportion of the children of foreign parents. Out of the 150 cases here tabulated, only one was of foreign parentage; and if I am correct in my belief that foreigners are more careful and more judicious in the way that their young are fed, this fact would go some way to support Dr. Baxter's views. Struma in all its forms is common enough among these foreign children; and I saw lately the child of a French father and an English mother which presented the most aggravated symptoms of rickets that I have ever witnessed at the age of eleven months.

An element of some importance with regard to the feeding of London children is the habitual carelessness of the parents as to the state of the child's bowels. Almost invariably, on inquiring into the condition of the motions, one is told that they are quite right; but on asking further, one learns that they are constantly green in colour, offensive in smell, and otherwise far from what they should be. I would lay more stress on this neglect of the condition of the digestive organs than on the quality or nature of the food; and, although I believe that starch foods are more pernicious than others, one sees many cases of rickets which cannot be ascribed to the effect of such a diet. For instance, I have lately had under my care a male child, aged two years, who was one of twin boys, equally healthy at birth. One child was nursed by the mother entirely till nine months old, and

he is perfectly healthy and strong; the other was brought to me on account of very pronounced rickets. This child had been brought up entirely by hand, and had been fed for the first year entirely on cow's milk.

The only other subject into which I made inquiry was as to the extent and character of the deformity of the various bones which were affected. Enlargement of the epiphyses of the ribs was found to be almost constant, while those of the radii and tibiae were affected with about equal frequency. Curvature of the tibiae was most frequently outwards; anterior and antero-external curvature were met with in about an equal proportion of cases.

Some deformities were curious and unusual, but the fact was established that in all cases they were symmetrical. This fact seems to point to the idea that all these deformities are due to a vitiated growth at the epiphysial line; and the theory that the weight of the body acting on the softened bones causes them to bend does not commend itself to argument. If that were the case, since a child always begins by crawling, the femora would invariably be curved, whereas they are found to be so in a very small proportion of cases; and since a child uses one leg for propulsion and the other for support, they could not be symmetrically deformed.

This subject has been so recently before your readers that I forbear commenting at greater length on the results above given; but the views of Dr. Baxter have been so generally approved, that I am anxious to add, in the briefest possible way, the results of my own investigations, which so curiously coincide with his in their results.

A CASE OF SPONGE-GRAFTING.

By W. WINSLOW HALL,

House-Surgeon, Gray's Hospital, Elgin.

C. M., a domestic servant, aged twenty, was admitted into Gray's Hospital, under the care of Dr. Duff, on October 28, 1882. She was suffering from two large ulcers on the dorsum of the left foot. The account she gave of her previous history was that up to the age of eight years she had enjoyed good health, but at that time erysipelas appeared in her left leg, and when the attack had subsided, eight or nine ulcers of varying size were left. It was some months before these were completely healed. Again, two years ago, she had a similar attack, and this time a large ulcer was left over the anterior and lower part of the tibia. After the lapse of a few months this also healed completely. Patient has lived in the country, has spent most of her life in the open air, and has had plenty of good food. Her father was carried off ten years ago by hæmoptysis, and for many years previously he had had chest troubles.

On admission, C. M. was found to be a pale, anæmic-looking girl, with a remarkably clear complexion. On the dorsum of the left foot is a large, irregularly-shaped ulcer, measuring about three inches in diameter and about one inch in depth. Its floor is rough and very dirty. Its edges are raised, rugged, and undermined. The discharge is thick and purulent. There is great pain, and the surrounding parts are swollen and red. The ulcer gives rise to an abominable smell. On the outside of the foot, below the external malleolus, and close to the ulcer described, is a smaller ulcer about one inch in diameter, with a floor composed of sloughing tissue; otherwise it resembles its neighbour. Besides the existing ulcers, her left leg is greatly disfigured by old cicatrices. Two of these are especially large, and are firmly bound down to the tibia at its upper and lower extremities. The glands in the groins, axillæ, and neck all seem to be healthy.

Treatment.—Cod-liver oil thrice daily. Charcoal poultices were applied to the sores, and they were syringed twice each day with carbolic lotion (one in forty).

November 3.—The large ulcer looks clean and healthy. The floor is composed of healthy granulations; the discharge is sero-purulent and inodorous, and the neighbouring parts are less swollen. The floor of the small ulcer still consists of sloughing tissue, adherent to the subjacent structures. A thin slice of ordinary sponge had previously been soaked in a very strong solution of carbolic acid for fifteen hours, and then carefully washed in a more dilute solution till there remained but a faint smell of the acid. Bits of this sponge-slice were now packed into each ulcer until rather above the

level of the adjacent skin, and a cotton bandage was applied over all.

4th.—Dressed to-day. Foot has been quite comfortable. No change visible. Syringed the sponges well with carbolic lotion (one in forty), and dressed them with lint, the lotion, and oiled silk.

5th.—The cotton bandage is stained by a thin red discharge. The lint and oiled silk seem blackened. Smell is bad again. The large sponge looks unchanged, but on pressure a thin bloody fluid appears. The small sponge is of a cream-yellow colour. Some bits of sponge were clipped from the surface with scissors. Dressed as before.

10th.—Dressed daily. The large ulcer now looks cleaner and smaller. There is still a putrid discharge, which requires to be squeezed out of the sponges at each dressing. Dressed as before, with the addition of iodoform powder sprinkled over both ulcers.

11th.—The large sponge is doing well. The small one has not such a healthy appearance, and the ulcer seems enlarging. The discharge from it is purulent and dirty.

17th.—Dressed daily in the same manner. Iodoform omitted to-day.

18th.—Patient is dishevelled and feverish. Pulse 136; temperature 103.2°. Yesterday afternoon she had a rigor, and now an erysipelatous blush covers the whole left foot. All dressings were removed, and a large poultice was applied.

19th.—The foot is greatly swollen and very red. There is no pain. The blush now extends nearly as far as the knee. The sponges look yellow, and are depressed below the level of the red and swollen surrounding tissues. Very little pus can be squeezed from them. The smaller ulcer is still increasing, and has almost eaten through the strip of skin between it and its larger neighbour. The tissues round the ulcers seem very tense.

20th.—The swelling is less to-day. Some pus is now coming from the sponges. The foot is painful. In the small ulcer the sponge is adherent by only one corner, and might easily be lifted out.

21st.—On account of the pain and tension, three short incisions were made on the dorsum pedis. Relief was immediate. Poultices were still applied over the whole foot.

22nd.—There is profuse suppuration from the sponges and from the incisions. No pain. Poultices were stopped to-day, and in their stead carbolic oil was applied to all the openings.

24th.—The suppuration was still copious. As some sloughing was beginning on the dorsum pedis, the poultices were resumed.

25th.—The tissues surrounding the sponges are still red and somewhat swollen. A great deal of pus is coming from the small sponge, and this sponge seems now much more adherent than it was four days ago.

26th.—Sponges doing well. The larger one is firmly fixed, and bleeds near its upper margin. At its lower margin granulations have grown up to the level of the sponge surface. The small sponge is becoming fixed, and the surrounding tissues are now on the same level as the sponges.

27th.—A good deal of pus is coming from the sponges. Lint and carbolic lotion (one in forty) substituted for the poultices.

29th.—Discharge is decreasing; granulations seem to be filling the sponges. An unattached fragment was clipped from the small sponge.

December 1.—The purulent discharge is diminishing. Dressed the sponges to-day with iodoform.

5th.—Each day the discharge grows less. Cicatrisation is going on under the margin of the sponges, so that the sponge-substance loosely overlaps the new skin. These overlapping pieces were clipped away.

7th.—Sponges doing well. The discharge from the larger one is still purulent, but from the smaller one it is serous and bloody. A septum of granulations lies between the two sponges, the skin having disappeared during the attack of erysipelas. The small sponge is deeply sunk, and surrounded by a terrace of granulations.

9th.—The small sponge is still rather loosely attached. The large one is firm, and overlaps a healthy cicatricial margin. Two points in this sponge are distinctly red and vascular.

12th.—The discharge is more profuse now, and somewhat offensive. Pulv. iodoform reapplied.

14th.—Sponges doing well. They bleed on pressure.

17th.—The margins of the sponges were again clipped away.

23rd.—Improvement is now rapid. Cicatrisation is going on under the margin of the large sponge, and the small one is being filled by granulations.

February 25.—Patient left the hospital to-day. Her progress has been slow, but uninterrupted. New skin spread gradually under the margins of the sponges, and as these margins became loose they were clipped away. Now there are merely two spots of sponge, each one smaller than a threepenny-piece. The former ulcers are now covered in by healthy skin almost on a level with the surrounding skin-surface.

Remarks.—The preliminary treatment of the sponge in this case was not precisely that recommended by Dr. Hamilton in his paper on sponge-grafting. He advised that the sponge should be prepared for use by soaking it in a mineral acid in order to dissolve out the spicules of lime and silica. He found that the network of keratode so obtained became filled with granulation tissue, and in time became practically a part of the patient's body. In this case the preliminary treatment consisted merely in disinfecting the sponge with carbolic acid. And as the case wore on it became evident that the sponge-tissue was not becoming incorporated in the patient's foot. It rose by degrees in the wound, and fragments were clipped away from its surface. In time it became stationary, and then new skin spread under its edges, so that in fact the sponge was slowly shoved out by the new tissue replacing it. In the event of the occurrence of a similar case it would be interesting to compare the quantity of sponge placed in the ulcer with the sum total of the fragments clipped away during the progress of the case. The employment of sponge-grafting was undoubtedly of value in this case. Nature had been allowed to treat two similar ulcers on the same leg, and had left two large cicatrices firmly adherent to the underlying bone. These caused great deformity, and could hardly be called perfect results. The result of the use of sponge-grafting was that a pliable cicatrix was obtained almost on a level with the neighbouring skin; the foot was saved from deformity, and its usefulness was not impaired.

EAST LONDON HOSPITAL FOR CHILDREN.—A numerous company of ladies and gentlemen assembled on the evening of the 21st inst., at Willis's Rooms, to celebrate, under the presidency of Dr. Andrew Clark, the sixth annual festival of this most useful charity. The Chairman, in proposing the toast of the evening, spoke in support of our large hospitals in general, refuting the charge made against them of fostering pauperism; and he specially appealed in favour of children's hospitals. Donations and subscriptions to the amount of over £2000 were announced in the course of the evening.

DEATH FROM FRIGHT OR SYNCOPE.—**REMARKABLE COINCIDENCE.**—In this city, on the night of the 8th instant, Mrs. Sarah Watson was taken sick, after retiring for the night, with symptoms of apoplexy, and shortly expired. Her sister, with whose family Mrs. Watson resided, swooned at the bedside, and died within ten minutes. A third sister being quickly summoned to the house, saw her sisters dying, and likewise fell unconscious, and died of cardiac paralysis—all three deaths occurring within twenty minutes. At the coroner's inquest it was found that Mrs. Watson died from apoplexy, the two others of nervous prostration or shock. The sisters were aged respectively, fifty-two, fifty-six, and fifty-eight years, and were all quite stout.—*Phil. Med. Times*, April 22.

AMERICAN TINNED FOODS.—Persons who use fruits and food preserved in tin cans have been found to suffer eventually from gastric disturbance. This, it is asserted, is due to stannous compounds, which are extremely irritating. Mr. Edison is reported (*Science*) to have invented a method of preserving articles of food in glass vessels from which the air has been exhausted, and a high vacuum produced. The glass vessel is then hermetically closed by sealing off the channel to the air-pump, the envelope produced being essentially a homogeneous piece of glass. This invention appears to meet the difficulty experienced in the use of tin cans.—*New York Med. Record*, May 20.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

DOUBLE HYDRONEPHROSIS, FOLLOWING RENAL CALCULUS—CYSTITIS—ENTERITIS (? TYPHOID FEVER)—OLD AND RECENT PERITONITIS—DEATH—POST-MORTEM EXAMINATION.

(Under the care of Dr. SIDNEY COUPLAND.)

ALICE J., aged twenty-one, unmarried, was admitted into Northumberland ward on January 22, 1880. She was a very thin brunette, looking ill and anxious, and complaining of a cutting pain below and to the right of the umbilicus, where there was also considerable tenderness. The abdominal walls were retracted, and what was taken to be the rounded lower margin of an enlarged spleen was distinctly perceptible to palpation below the left lower ribs. The free extremities of the eleventh and twelfth ribs could readily be felt, and the swelling appeared in front of them; whilst to percussion it was continuous with the splenic dullness above. There was no other abdominal tumour. The liver did not come below the costal arch. Pulmonary and cardiac sounds normal; the heart's apex impinging in its normal situation.

She had no headache; slept well; pupils small and equal; skin harsh and dry. No oedema. Tongue large, pale, and moist, but clean. Bowels confined. Catamenia regular up to the last period, which was missed. Temperature normal; pulse 100, small; respirations 20.

Opium fomentations were applied to the abdomen, and an enema gave relief to the bowels. The urine, examined the day after admission, was found to be highly ammoniacal and to contain pus.

The history (obtained by Mr. Canton) threw more light upon the case. Her father was living, aged fifty-three, and subject to attacks of "lumbago." Her mother died at the age of forty from "consumption." The patient, when four years old, had measles, followed by scarlet fever, and has never been well since. No dropsy followed the fever, and even before that attack she used to experience pain across the lower part of the belly during micturition, and the urine was often noticed to be thick and red. From that time she has never been free from periodical attacks of abdominal pain, so severe as to keep her awake for nights together, and causing her to cry out. Each attack was accompanied by headache and vomiting. The attacks recurred two or three times a year, but of late they had been more frequent. In these attacks there was dysuria, and the urine was thick, dark, and offensive, but rather more copious than at other times. Indeed, she always experienced some difficulty in micturition, and "feared" to pass urine, so that she would go for long periods without doing so. Then the urine would come away "in a gush," and she would pass an abnormally large quantity. There was often a reddish deposit; latterly it had become whiter in appearance. Between the attacks of pain she was bright and cheerful, nor did she complain when suffering, but looked very depressed and ill. In 1869 she was for three or four months an inmate of Great Ormond-street Hospital for Sick Children. In 1871 she had a severe attack, coming on with vomiting, headache, hypogastric pain, dysuria, etc., and was confined to bed for a fortnight. In this attack she had retention of urine lasting fourteen or fifteen hours, which was suddenly relieved by the passage of a calculus, the size of a small French bean. (The parents had preserved this stone, which was encrusted with phosphates.) For a few months following this there was incontinence, and the pains lasted a few weeks. Then she remained free from any pain for about a year; but since then she has had several severe, but not long-lasting, attacks. When the attacks come on she is drowsy. In the autumn of 1879 she was ill for two weeks with headache, sickness, and pain in the left loin as well as in hypogastrium; no diarrhoea. Her present illness dated from January 1, 1880, when she began to feel unwell; she became weak, lost appetite, and grew thin, suffering from similar symptoms as in previous attacks, but the urine became turbid, "like blood," and highly offensive. On the 19th she was seen by Mr. Meredith

at the Samaritan Free Hospital, and there being no vacancy there, he sent her to the Middlesex Hospital on the 22nd, vomiting having set in. The diagnosis was cystitis and peritonitis; the previous history of the passage of a calculus, and the subsequent recurrent attacks, suggesting the possibility of another calculus being present. No opportunity was afforded for determining this during her life, which came rapidly to a close.

January 23.—9 a.m.: Temperature 98°; pulse 132. Heart's impulse very diffused; a blowing systolic bruit at apex, conducted to angle of left scapula; second sound ringing. Tongue moist and slightly furred. Bowels had been opened. 1 p.m.: Is lying on back, with knees flexed and thighs raised. Abdomen flat and resonant. No increased resistance, but everywhere marked tenderness even to slight pressure, especially in hypogastrium. There was abdominal breathing, however. She had been vomiting some greenish fluid after taking food, and again after the palpation of the abdomen. Had been taking an effervescent mixture. Stimulants were prescribed, and a quinine injection for the bladder. 9 p.m.: Temperature 98.2°; pulse 132.

24th.—Passed a restless night. Much tenderness in the hypogastric and left lumbar regions. In the afternoon she was depressed and listless, and the pulse had become very weak. The vomiting continued, but there was no distension of the belly.

Very little change in her condition took place until, at 6 a.m. on the 25th, she suddenly screamed out, became convulsed, and died almost instantaneously.

Post-mortem Examination, thirty-one hours after Death.—No general peritonitis, but the omentum was firmly bound by old adhesions to the back of the bladder, and to some coils of ileum in its immediate vicinity. On detaching and reflecting the omentum, these coils presented a purple appearance, studded with spots of black pigment. But only at a small part near the end of the ileum was there any recent lymph on the serous surface. No granulations. Mesenteric glands swollen and black, varying in size from a small pea to a French bean—especially those connected with the ileum. Examination of the bowel showed intense enteritis, with ulceration throughout the lower six feet of the ileum. Its mucous membrane was thickened, purplish, and coated with a brownish pellicle, especially along the valvulae conniventes. It was also deeply pigmented, and at the seat of Peyer's patches were erosions and groups of small, sharply cut ulcers, giving quite a worm-eaten aspect to the bowel, and in places nearly perforating the serous coat. The twelve inches immediately above the ileo-cæcal valve showed only intense vascularity and prominence of the follicular glands. Large intestines normal. Projecting below the eleventh and twelfth ribs on the left side was a globular cystic tumour occupying the hilus of the kidney and reaching forwards nearly to the aorta. (It was this tumour which had been mistaken for an enlarged spleen during life.) It was found to consist of the greatly dilated pelvis of the kidney distended with turbid ammoniacal urine. The rest of the organ was converted into a chambered sac, the outer wall of which and some of the septa being composed of tough, sodden-looking renal substance, in which no distinction between cones and cortex was manifest. Some of the dilated calyces came close to the surface. The organ measured four inches and three-quarters vertically, and three inches and a quarter transversely. It weighed three ounces and three-quarters. The ureter was dilated, distended with turbid urine, but apparently not obstructed. The right kidney was represented by a small flattened body, not larger than a supra-renal capsule, and weighing only three-quarters of an ounce. It was fleshy in appearance, but on incision was found to consist solely of a flattened and empty chambered sac, lined with a smooth membrane. The ureter was thickened, but pervious. No calculus was found in the kidney or ureters, nor in the bladder, which was semi-contracted and contained some foul urine. Its mucous membrane was pigmented, but showed no signs of recent inflammation. The liver was natural; the spleen firm. There was notable hypertrophy of the left ventricle of the heart (which weighed eleven ounces), but no valvular disease to explain the mitral regurgitant murmur heard during life. The lungs were healthy.

Remarks.—It is certainly remarkable that, with such advanced renal disease, life should have been prolonged so

In accordance with the resolution of the Royal College of Surgeons, to which we have already referred, a Committee has been appointed for the purpose of carrying out the intentions of that body. The resolution stands as follows:—“That it is desirable that an examination in Elementary Anatomy and Physiology should be instituted at the several recognised schools of medicine after the end of the first year of professional study, and that any student commencing his professional education on or after October 1, 1882, should not be admitted to the primary examination for the diploma of Member of the College without the production of a certificate from his teachers that he has satisfactorily passed the examination in question at his medical school.” Further, this Committee has appointed Monday, the 26th inst., for the purpose of meeting the teachers of anatomy and physiology in the various English schools, in order if possible to devise a scheme whereby the proposal may be carried out. In the event of any one being unable to attend, he is invited to send in writing answers to the following questions:—“1. What is your opinion on the propriety of holding the proposed examination in Elementary Anatomy and Physiology after the end of the first year of professional study? 2. If it be determined to hold such an examination, what should be its scope in regard both to the subjects involved and the mode of conducting it? 3. At what period after the end of the first year would you propose that the examination should be held? 4. Would you allow any variation, as regards time, to meet the cases of exceptional students, at which such examination should be held, or would you fix a certain date after the completion of the first year at which all candidates should pass it? 5. If you would allow a variation, how long would you delay the right on the part of the candidate to pass the examination before presenting himself for the primary examination for the membership. 6. And, generally, will you kindly favour the

Committee with any suggestions and observations you may have to make with respect to the examination?"

It perhaps will not be taken amiss that we should make some remarks on the whole subject herein dealt with, for it has long engaged our attention, and practical experience has taught us what can be done in the way indicated, and what cannot. But we should be awanting in our duty did we not first of all congratulate the College authorities on the attitude they have assumed in this difficult matter, and on the fairness and candour with which they have proceeded in it. There has been no attempt to thrust down men's throats rules and regulations which may be unpalatable to some, and looked on askance by others. The action they have taken clearly shows that they are anxious to meet the wants of the present time, and to take counsel with those who are actually engaged to the best of their ability in contending with the many difficulties which surround the complex problem of modern medical education. For that there are difficulties all will freely admit, not the least among them having been originated by members of our own profession who should have known better. This was partly brought about by the evil old system of constantly grinding on in the same ruts and furrows; so that when once a man had constructed a system of lectures, he would go on delivering them, time after time, session after session, to the same men, over and over again, till incapacitated by age, it might be, from going through the periodic mill-round. As usual, the rebound from this state of things was too great; everything was to be practical. It was to be the grand time when the rule of thumb was to be everything—when a man was to know nothing he had not seen, and when mechanical contrivances were to supersede all necessity for skill save in their application, and the working out of a problem of disease might be done by algebra. The reading of books was to supersede all necessity for lectures. We should hold, for our part, that any man advancing such views was *ipso facto* unfit to be a lecturer or teacher. Fortunately more moderation now prevails. The good and the bad in both systems are, let us hope, becoming clearer. And we look upon it as a most hopeful omen that the College authorities are beginning to take the teachers into their confidence.

Turning, however, to the questions on which the College Committee seek information, we cannot help noting certain preliminary difficulties. There is good in the proposal, and there is evil, as is the case with most mundane things; we must, therefore, try to strike a fair balance between the two. Looking first at the fair side, such an enactment would undoubtedly have the effect of keeping students closer to their anatomy and physiology during the first year than is now the case. As a rule, we find no lack of enthusiasm when the student enters; but the newness of the whole thing, the freedom of the student—as compared with the school-life, the absence of all tasks, and that hopefulness happily so abundant in the young breast, in due time play their part, and, when coupled with the inevitable weariness of work which after a time comes over the student, oftentimes bewildered or befogged, undoubtedly tend to foster a carelessness that exhibits itself in various ways. The prospect of an examination which must be passed would go far to remedy this.

On the other hand, examinations of the compulsory kind, which settle nothing, are to be deprecated. When a man has to get himself up for a pass examination, after which he may put the subject on one side, he can exert himself to do so, but it is not good, intellectually or physically, that he should be kept at the highest possible pressure during a prolonged period. And for this reason we should strongly advise an examination of an easy kind, such as every man with fair average working powers would without stress be

able to pass after six months' study. Anything beyond this would only do harm, and every effort ought to be made to keep the examination at this level. We know too well what effect examinations at the College have upon men to advise the repetition of this ordeal, especially, as we have already said, since the passing of the proposed examination only gives a right to be farther examined.

Much has been said about the difficulties in the way of conducting the proposed examination. We can see none that may not be overcome with a little management. At every school there is an examination for prizes at the end of each session. We have never heard of anything like favouritism being suggested in such examinations; anything of the kind, indeed, may be easily avoided by the use of numbers or some similar device. Why should not all the students have to go in for this examination, and to attain a given standard in it? The teacher and examiner is not likely to be less faithful to the College than to his pupils themselves. True, there would be more work to be done, but probably, on the other hand, the teacher would gain in certain respects.

Two things are, however, clear to our mind—that such an examination cannot be conducted by the College authorities themselves; and secondly, that it cannot include *vivâ voce* questioning. Moreover, students are likely to answer better with their own teachers, and to be less worried by the examination; but it would be well if the papers set at each examination, and the values assigned to each question, together with the standard required as regards marking, were submitted to the College authorities along with the pass-lists. The College would thus have ample means of judging of the nature of the examinations, and might be enabled, by judicious remark, either to moderate excessive zeal or to stimulate laxness. We repeat that the honour of the teachers need not for a moment be called in question, and if at any time any difficulty arose, the papers would be there for reference.

From certain of the questions submitted to the teachers, there seems to be a vagueness in the minds of the Council or Committee about the time at which this examination should be passed: in ours there is none. If the examination is to be of the slightest service, it should take place at the end of the first winter session, and no delay should be allowed. Carried out in the way we have indicated, the examination would not add so very greatly to the teacher's work, but a special examination at any other time would certainly do so. Should a man fail at that time it might well be left to the school, as a matter of discipline, to arrange when next a chance should be given; but it clearly seems incumbent that all should present themselves for examination at that time. If it should be considered advisable to conjoin some knowledge of practical histology, as far as the examination and description of tissues go, this might be arranged according to the rules of the school as to attendance either at the end of the first winter or first summer, when the combined result might be sent to the College. There would be no such difficulty as regards anatomy, and both in this subject and in physiology the examination should be at the end of the winter session, when the men are yet fresh from their work. As to those that fail, we can conceive a plan which would work, though probably there might be objections raised against it. This would be to postpone the next examination to the end of the second year just before the College Primary, and then make it equivalent to the test examination now enforced at many schools.

Finally comes the most difficult question of all—the range and scope of the proposed examination. Probably most men would differ on this point. In anatomy, however, we know fairly well what a student is expected to have mastered by

the end of his first winter. He is expected to know his bones thoroughly, and that implies a great deal. He can hardly be expected to know much of "part" anatomy, but he should know the origin, insertions, and actions of muscles and ligaments. As it seems to us, there should be no great difficulty in showing him the relative positions of the thoracic and abdominal organs; and this is all important for physiological teaching. In physiology it is possible for a man to acquire a fairly good knowledge of the functions of digestion, absorption, circulation, and elimination during his first winter, whilst in histology a man can learn as easily as his bones the appearances of the simple tissues and their less complex combinations. But with regard to all these things he would be a bold man who would speak with absolute confidence. The College authorities are proceeding cautiously and wisely; they are not very likely to be led astray by crotchets-mongers, and they well deserve to succeed.

MECHANICAL RESTRAINT IN THE TREATMENT OF THE INSANE.

In taking leave of the Surrey County Asylum at Brookwood, which he has superintended with such distinguished success since its opening, sixteen years ago, Dr. Brushfield refers to the subject of the mechanical restraint of the insane, in words which are well worthy of attention at a time when a reaction has set in against the non-restraint system, and when a tendency is obvious in various quarters to revert to measures which it was hoped had been banished for ever from the wards of English asylums. As a pupil and follower of the late Dr. Conolly, Dr. Brushfield says he has never during his long official career sanctioned or used mechanical restraint of any kind in the treatment of the insane. Cases have occasionally come under his cognisance in which immediate benefit might have perhaps been secured by a resort to the strait-waistcoat, but the danger of slipping into a system of restraint if the principle that it was justifiable were once admitted, and the certainty that such a system, if introduced, would be abused, and would do more harm than good in the long run, has always deterred him from taking the first retrograde step. There can be little doubt that Dr. Brushfield has acted with sound discretion in this matter, and has avoided risks of demoralisation in the establishment under his care; for this is just a question in which the thin edge of the wedge, however fine and insinuating it may be, must be resolutely declined. If the employment of mechanical restraint be once permitted in lunatic asylums for any but surgical reasons, we shall slowly at first, more rapidly hereafter, and always inevitably, drift back to many pernicious practices which characterised the administration of such establishments in bygone times. Mechanical restraint is such a safe and simple substitute for human supervision, that it is very seductive to asylum officers, and tempts them by promising relief from many pressing anxieties. But if they yield to its temptations, and adopt it, they will find in time that it brings with it a train of evils much more serious than those which it seems to obviate. The hospitals over which they preside will lose that high position in public estimation, which they have been gradually attaining, when it is known that they are again furnished with a supply of the once discarded strait-waistcoats, muffs, and belts. The repugnance now felt by the relatives of the insane to resort to such institutions will be intensified when it is understood that the unhappy victims of mental disease placed in them are liable to be treated like refractory criminals. The patients subjected to restraint may be prevented from inflicting injury on themselves or others, but they will sometimes have their recovery retarded or compromised by the humiliation attendant on their bonds, by the exhaustion

of their incessant struggles with them, or by the absence of that medical treatment which, when restraint is out of the question, is more likely to be resorted to for the mitigation of prominent and troublesome symptoms which are essential constituents of the pathological state. Patients who are not themselves restrained will be pained and frightened by seeing restraint imposed on other members of the class to which they belong; and nurses and attendants will sadly deteriorate when no longer called on for the exercise of tact, forbearance, perseverance in the management of difficult cases; and when it becomes possible for them to shirk delicate duties by representing to the doctors the necessity for the application of the ever-handy camisole or polka in just another case. The moral treatment of the insane, which has been so highly elaborated, and has had such beneficent results, must disappear when coercion is introduced into lunatic hospitals, and when lunatic suspects are liable to have their personal liberty curtailed in a very peremptory manner. Moral suasion and physical force are incompatibles in asylum management, and the choice lies between the two.

Dr. Brushfield has succeeded in managing the Brookwood Asylum, which contains upwards of a thousand inmates drawn from the metropolitan district, and not therefore of the most tractable class, without mechanical restraint, and in such a way as to create for himself a high reputation and to secure the encomiums of all who have inspected the institution under his charge. It would be a confession of weakness were younger members of his department of practice to own their inability to follow his example, and to demand a supply of strait-jackets in order to enable them to insure the safety of their patients and the good order of the establishments over which they preside.

THE EPIDEMIC OF SMALL-POX IN BERLIN IN 1881.

DR. PAUL GUTTMANN, Medical Director of the Baracken-Lazareth, which, since the closure of the Charité to such cases, is the only hospital in Berlin that admits small-pox patients, has published some interesting observations bearing especially on the relation between small-pox and vaccination.

From 1863 to 1870, during which time the population of Berlin increased from 600,000 to 900,000, the number of cases of small-pox varied annually from 790 to 3334, and the deaths from 100 to 620. Then came the wide-spread epidemic of 1871-72, in which years the cases were 17,074 and 3674, with 3552 and 1128 deaths. This has often been quoted triumphantly by the opponents of vaccination, whereas the fact is that up to that time vaccination had been greatly neglected in the Prussian metropolis. Henceforth it was better enforced, and in the eight following years the cases and deaths were respectively 353 and 93, 85 and 20, 153 and 34, 88 and 14, 18 and 3, 24 and 0, 29 and 0, 36 and 0. From 1878 to 1880 the disease must have been of a very mild type.

In 1881, the population having reached 1,155,217, or twice what it was twenty years ago, Berlin shared in the epidemic which again swept over Europe, and 298 cases, of which 50 were fatal, occurred in the whole city; of these 115 were in the Moabit quarter, where the Baracken-Lazareth is situated. Of the 298 cases, 135 were admitted under Dr. Guttman's care, 47 of these coming from the Moabit. The epidemic exhibited, as usual, a regular rise and fall. Of Dr. Guttman's cases 3 occurred in January; in February, 6; March, 13; April, 30; May, 57; June, 14; July, 4; August, 7; November, 1; and so in the city generally. As regards sex, 84 were males and 51 females, the total excess of the former corresponding nearly with that of males over females between the ages of twenty and thirty, viz., 47 men to 17 women. In childhood there were 9 females to 6 males. The preponderance of victims among male adults Dr. Guttman

attributes to the greater exposure incident to their habits and employments. He has noticed an even greater disparity in other epidemics, *e.g.*, the typhus of 1879 reckoned 408 men to 30 women, and the relapsing fever of the same year 252 men and but 2 women.

Of the 135 cases, 23 only were under twenty years of age, 92 between twenty and forty years, and 20 among older persons. The mortality among children was, prior to the general adoption of vaccination, higher than among adults. But of the 15 children under ten years admitted, 8 must be excluded as not having been vaccinated, or at least not successfully; and even of the 7 remaining cases it is doubtful whether 2 had small-pox at all, and not a vesiculo-pustular exanthematous eruption.

For a long time vaccination has been far more universally and thoroughly performed in the other German states; and Curschmann, among 632 cases of small-pox in an epidemic at Mainz, could not find a single child under twelve years who had marks of successful vaccination.

Of Dr. Guttman's patients 118 were *said* to have been vaccinated in childhood, but in 20 no marks were to be seen, and of 25 in the beginning of the epidemic no notes were taken at the time: this leaves 73 who bore evidence of early vaccination, and of these only 4 died, the whole mortality having been 25 in the 135. Of the 20 whose vaccination, leaving no visible marks, must be considered to have been unsuccessful, 9 died; and of 6 known to be unvaccinated, 5 children and 1 adult, all proved fatal. Of the 25 of whom nothing is positively known, 6 died; even if these be added to the 73 the result will be still greatly in favour of vaccination, but probably many of them belonged to the other classes. Dr. Guttman's cases were not numerous enough to allow of his verifying Mr. Marson's observations on the relative efficacy of few or many vaccination-marks; but as regards the severity of the disease, they tended to confirm them. We forbear to enter into his statistics of varioloid and variola, believing such distinction to be, as he admits, an arbitrary one—unsatisfactory in the highest degree if the eruption be taken as a guide, and scarcely less so in respect of the consecutive fever.

As to the value of revaccination, the evidence, though less ample, is scarcely less decisive: 36 patients stated that they had been revaccinated, and 5 of them twice, but a successful result could be asserted of 6 only; 15 admitted that the operation had failed; and from the same number no information could be gathered (these Dr. Guttman supposes must have been done unsuccessfully, since it is hardly possible that no recollection should be preserved of the development of satisfactory vesicles). These revaccinations had been performed at various periods from one to fifty years before admission; 2 of the 36 died, but since the operation in their cases was confessedly unsuccessful, the mortality after revaccination was *nil*.

Dr. Guttman is inclined to allow for revaccination a limited duration of protection, as for the primary operation. He would put this at eight to twelve years, as a rule; but he met three cases of small-pox, not fatal, in successfully vaccinated children of three, five, and six years old respectively. In several instances he was able to fix the period of incubation, and found it to vary between nine and thirteen days.

THE WEEK.

TOPICS OF THE DAY.

LAST week Professor Huxley distributed the prizes at the London School of Medicine for Women, Henrietta-street, Brunswick-square, which is in association with the Royal Free Hospital, Gray's-inn-road. According to a statement

of the affairs of the institution, read by the Dean at the commencement of the proceedings, the number of students at present in the School is thirty-nine, making the total number admitted since its foundation in 1874, 100. The financial statement was to have been brought forward by the Right Hon. J. Stansfeld, M.P., the treasurer; but in his unavoidable absence it was taken as read. The receipts for the year were £1895, including £1033 paid in students' fees. The total disbursements were £2096, of which sum £450 represented investments. Professor Huxley prefaced the distribution of the prizes with a few remarks in commendation of the medical education of women, in the course of which he announced a somewhat important fact. As a member of the Royal Commission on the Medical Acts, he said, he had only that morning seen its printed report, and although it had not yet been presented to Her Majesty the Queen, he felt he was not committing an indiscretion by saying that the Commissioners would not advise that any barrier should be raised against women. Before the conclusion of the proceedings the following resolution was moved and carried:—"That this meeting has heard with much satisfaction of the continued progress of the School, and resolves to support the proposal to raise £800 a year, or such amount as may be necessary to maintain it in its present state of efficiency, until the number of students renders it self-supporting."

The following appears to be a case worthy the immediate attention of the Medical Defence Association. Mr. W. Carter recently held an inquiry relative to the death of Robert Smithers, aged thirty-four, residing in Walworth. The evidence showed that deceased, a salesman in Billingsgate Market, had one day recently returned home complaining of a pain in his chest, which he attributed to indigestion. Finding he got worse, his wife went to a Mr. Oldfield, a chemist, of Villa-street, under the impression that he was a qualified medical man, as he had attended her and her children upon previous occasions. Mr. Oldfield wrote a prescription, and his assistant made it up. The next morning the deceased was much worse, and shortly after eight Mr. Oldfield visited him, and prescribed a second time; but after taking two doses of the medicine, the patient suddenly expired. When a certificate was applied for it was found that Mr. Oldfield could not furnish it, and hence it was necessary to hold an inquest. Mr. John Hopkins, surgeon, of Camberwell-road, deposed to making a post-mortem examination, and to finding that heart-disease was the cause of death, and not the medicine the deceased had taken. Mr. Hopkins complained that in Walworth there were several unqualified men in practice; and he asked the Coroner if nothing could be done to stop this illegal practice. Mr. Oldfield had been cautioned by him two years ago to desist from attending patients in the capacity of a medical man. A verdict of death from natural causes was returned, and the jury expressed an opinion that Mr. Oldfield was deserving of severe censure. As we remarked last week, in commenting on the "dispensary" practice, the censure of juries will do no good in stopping these illegal proceedings; but in the present instance the chemist seems to have undoubtedly rendered himself liable to be prosecuted—that is, if, as reported, he actually visited the patient at his own house.

A butcher of Cambridge was recently summoned at the Guildhall Police-court for sending four quarters of a cow to the Metropolitan Meat Market for sale, the same being unfit for human food. It was stated that the defendant had purchased the cow for £5, the animal being in a low and weak condition. It was killed and sent to London, and when it arrived in the market it was found that it had been suffering from lung-disease. For the defence, the owner of the cow, who sold it to the defendant, stated that it was not

diseased, but as it went off its milk, he sold it; he gave £25 for it four years ago. Sir Thomas Dakin said he looked upon an offence of this sort as very serious; and to his mind it was a case of constructive murder, for there was no telling how many lives might be sacrificed by the sale of such unwholesome food. He was determined to put a stop to this trade if he could, and as fines were ineffectual, he should take another course. He sentenced defendant to one month's imprisonment. The defendant's counsel pleaded that, as his client had carried on business for many years, and this was his first offence, a fine should be imposed instead of imprisonment; but Sir Thomas Dakin remarked that fines had no effect, and he should decline to alter his decision. Notice of appeal was accordingly given, and the defendant was liberated on bail.

An appeal has recently been put forward, calling the special attention of the supporters of University College Hospital to its present unsatisfactory financial position. The Committee state that they have been disappointed in their expectation that the increase of the Hospital's usefulness as a charity and a school, by the addition of forty beds in 1879, would lead to a correspondingly increased measure of support. No appreciable result of that kind has followed. The present scale of annual expenditure is therefore largely in excess of the receipts, and the current year had to be commenced with debts to tradesmen and others exceeding £7000. Within the last two years it has been found absolutely necessary to sell out stock realising nearly £15,000 for the payment of ordinary accounts, and if a continuance of this method of meeting obligations should be necessary, it is evident that the expenditure of the Hospital must before long be curtailed by reducing the number of beds. Such a prospect, the circular adds, cannot fail to be most distressing to all who have the interests of the Hospital at heart, and the Committee, therefore, earnestly commend the statement now published to the practical consideration of the governors and the charitable public generally. It is unfortunately an undeniable fact that the badness of the times, combined with the present position of affairs in Ireland, has exercised a depressing effect upon the usual flow of charity in this country; and it is also much to be feared that the institution of Hospital Sunday collections in the metropolis has not resulted in a total increase of support to these charities, but rather the contrary.

A National Society for the Suppression of Juvenile Smoking has been founded at a meeting recently held at Exeter Hall for the purpose, Dr. B. W. Richardson presiding. Letters were read from the Earl of Aberdeen, Mr. S. Morley, M.P., Mr. Benjamin Whitworth, M.P., and others, approving the objects of the meeting. The chairman, in his address, condemned tobacco-smoking as an unnecessary and grave evil, deranging the system generally, and destructive to the mind and body of the young. He expressed his warm approval of the objects of the Society. The Hon. Arthur Kinnaird expressed his conviction that a national society for the suppression of juvenile smoking was absolutely needed, and moved a resolution to that effect. This was seconded by Mr. J. Sinclair and carried. Subsequently the chairman was elected honorary president of the Society, and the Hon. A. Kinnaird treasurer, a committee was formed, and the proceedings terminated. It will be rather curious to observe what steps the Society intends to take for the suppression of this juvenile vice. Even the most sanguine of these gentlemen must have some doubts as to the success of exhortation, and anything stronger could scarcely be attempted in this country—as yet, at any rate.

Amid much rejoicing, the new waterworks erected at

Henley-on-Thames at a cost of nearly £12,000 were opened on Saturday last, Mr. W. H. Smith, M.P., taking the principal part in the ceremony. The works, though on a comparatively small scale, have been designed with a view not only to the present, but the prospective needs of the community.

THE GENERAL MEDICAL COUNCIL.

At a meeting of the Royal College of Surgeons, Edinburgh, held on the 21st instant, Dr. Patrick Heron Watson was elected representative of the College in the General Council of Medical Education and Registration of the United Kingdom, for the period of three years, in the room of the late Professor Spence.

THE RECENT HOSPITAL SUNDAY FUND COLLECTION.

SINCE our last, the following have been among the larger sums paid in at the Mansion House to the credit of the Hospital Sunday Fund collections for the present year:—Wanstead (Essex) churches, £42; Christ Church, Lee, £89; St. Martin's-in-the-Fields, £50; St. Mary's and St. John the Evangelist, Putney, £80; Mr. W. Bracken, £25; Quebec Chapel, £320; All Saints', Camberwell, £37; West Ham parish church, £27; St. Stephen's, South Kensington, £234; St. Mary, Aldermary, £70; St. Mary, Stoke Newington, £62; St. Mark's, Kennington, £41; Holy Trinity, Knightsbridge, £89; Chapel Royal, Savoy, £61; Holy Trinity, Upper Tooting, £39; St. Mary's, Hadley, £45; St. Gabriel, Pimlico, £42; St. Matthew, Bayswater, £175; St. Thomas, Westbourne-grove, £30; Emma A. James, £100; St. Mary and St. Gabriel, Newington, £32; St. Pancras parish church, £107; Mr. J. Smith, £20; Hornsey parish church, £49; Chapel Royal, St. James's Palace, £67; Holy Trinity, Sydenham, £130; All Saints', Knightsbridge, £187; St. John's, Notting Hill, £34; Christ Church, Lancaster-gate, £627; St. Stephen's, Westbourne-grove, £401; Lock Hospital Chapel, £60; St. Mary, Bryanstone-square, £63. The Fund exceeded, on the 20th inst., the sum of £24,500, which is stated to be £2100 in excess of any previous year's total up to the same period, whilst a considerable number of collections have yet to be sent in.

UNIVERSITY OF OXFORD.

THE degree of Bachelor of Medicine was conferred on the following gentlemen on the 15th inst.:—Edmund Owen Daly and Walter Fell, of University College; James Richmond, of Merton; D'Arcy Power, of Exeter; John Alfred Parry Price, of Queen's; Edward Johnstone Jenkins, of Trinity; and Oscar William Clark, of St. Edmund's Hall.

ARTISANS AND LABOURERS' DWELLINGS.

THE Select Committee of the House of Commons, which have for two sessions been occupied in considering Mr. McCullagh Torrens's Act of 1868, amended in 1879, and Sir Richard Cross's Act of 1875, also amended in 1879, have agreed upon their report. The Committee make a variety of suggestions with a view to abate the enormous expense which has hitherto been the chief difficulty in erecting cheap dwellings for artisans upon the remainder of cleared areas on valuable urban sites. In addition to the proposals for facilitating the operation of the Acts by removing technical difficulties and modifying the requirements of past legislation, the Committee find that when Sir R. Cross's Act came into force the vestries expected, although erroneously, that what they were doing under the Act of Mr. Torrens would be done for them by the Metropolitan Board of Works. This, to a large extent, stopped their work, and it became necessary to define clearly the proper sphere of the two systems. So far

from dealing with them as antagonistic, the Committee strongly express the opinion that both should be worked *pari passu*, each being suited to different conditions, and both being more than needed to afford any effectual relief. The Committee also recommend that the obligation placed upon the Eastern Counties system of railways out of London to provide trains for artisans at the rate of one penny for each passenger per course of seven or eight miles, should be extended to other suburban railways as opportunities may offer. The Committee had also under consideration the Sanitary Acts and the Acts enabling the Metropolitan Board of Works to carry out street improvements. It need not be added that there is no chance of the Government being able to utilise the report of the Committee during the present session of Parliament.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

THIS College has, by an amendment to the by-law relating to fees for the Licence in Medicine, recently granted an important concession to graduates in Arts and Medicine of any University in the United Kingdom. Instead of a fee of fifteen guineas, the fee for the licence will in future be only five guineas to such candidates. We understand also that a concession of a similar kind is about to be made to Licentiates in Medicine of the College who are candidates for the Membership, and who at the same time hold degrees in Arts and Medicine from a University in the United Kingdom.

THE SUPPLY OF CALF-LYMPH.

IN the House of Commons, on Friday, last week, Dr. Cameron asked the President of the Local Government Board what had been done towards carrying out his promise that a public supply of calf-lymph should be provided for the vaccination of those who prefer it to humanised lymph. Mr. Dodson stated that a permanent vaccine station has been established in Lamb's Conduit-street, under Dr. Cory, for the purpose of providing regular calf-to-arm vaccination, and giving opportunities for the vaccination of children in that manner twice a week. At first, he said, great difficulties were experienced in obtaining suitable premises for keeping up the supply of calf-lymph; but temporary accommodation had been obtained at Notting Hill, and last summer lymph began to be distributed from calves vaccinated there. Since July last lymph had been obtained sufficient to charge 2106 points and 78 tubes, of which 1670 points and 51 tubes have been distributed. The lymph is supplied to public vaccinators and other registered medical practitioners, free of charge. The Lamb's Conduit-street Vaccine Station was opened in March last, and since then thirty-seven children have been vaccinated there direct from the calf.

THE PARIS WEEKLY RETURN.

THE number of deaths for the twenty-third week of 1882, terminating June 8, was 1105 (588 males and 517 females), and among these there were from typhoid fever 36, small-pox 11, measles 37, scarlatina 2, pertussis 4, diphtheria and croup 52, dysentery 2, erysipelas 11, and puerperal infections 6. There were also 45 deaths from tubercular and acute meningitis, 196 from phthisis, 27 from acute bronchitis, 58 from pneumonia, 101 from infantile athrepsia (41 of the infants having been wholly or partially suckled), and 30 violent deaths (28 males and 2 females). The number of deaths registered during the week is lower than that of any of the four preceding weeks; typhoid fever, scarlatina, and pertussis still continuing to diminish, and the other epidemic affections remaining stationary or nearly so. The births for the week amounted to 1150, viz., 587 males (454 legitimate

and 133 illegitimate) and 563 females (446 legitimate and 117 illegitimate): 88 infants were either born dead or died within twenty-four hours, viz., 45 males (31 legitimate and 14 illegitimate) and 43 females (29 legitimate and 14 illegitimate).

RIVERSIDE FISH MARKET FOR LONDON.

THE Committee of the House of Lords have passed the private Bill promoted by Messrs. Hewett to establish a new riverside fish market at Shadwell. But they have adopted two important clauses in the interest of the Corporation of London. One of these clauses empowers the Corporation, within six months after the passing of the Bill, to acquire the rights of the promoters with regard to the new market, on repaying them the costs of promotion; and the other provides that if this option be not exercised, the proprietors of the new market shall compensate the Corporation for any falling off thereby caused in the tolls at Billingsgate. These clauses very considerably alter the value of the new scheme.

TYING THE INNOMINATE ARTERY.

ON Friday, June 9, Mr. William Thomson, Surgeon to the House of Industry Hospitals, tied the innominate artery of a man aged fifty years, the subject of subclavian aneurism. Mr. Barwell's ligature was used to secure the vessel. Up to Wednesday last the patient was making satisfactory progress. The patient suffered from an aneurism springing from the third and second stages of the subclavian artery. Some months ago he refused to submit to any operation, and left the hospital. He, however, lately returned, the aneurism having increased in size, and then measuring three and a half inches in diameter at its base. Operation was again proposed, and was consented to; but pulsation ceased suddenly. This continued for twelve hours. During a week there were occasionally short cessations, but the tumour meanwhile enlarged, the skin became red, and it was determined to operate. The wound has entirely healed, with the exception of the opening left by the drainage-tube; the pulse is 98, and temperature is normal; the tumour is smaller, absolutely still; and sensation is returning in the right arm, which had long been paralysed by the pressure of the aneurism on the brachial plexus. Much interest is naturally felt in the result of this operation, seeing that of fifteen recorded cases only one recovered, the patient being a negro operated upon by Smith of New Orleans. In that instance there was severe secondary hæmorrhage, and it became necessary to ligature the vertebral and internal mammary arteries.

THE INSANITY OF GUITEAU.

ACCORDING to the *Boston Med. Journal* (May 18), Dr. George Beard, of New York, is collecting signatures for a petition to the President of the United States, asking him, in the name of psychological science, to stay the execution of Charles J. Guiteau. The petition is based upon the following "facts":—1. For more than twenty years Guiteau has been hopelessly insane; 2. Under a right management of the case the opinions of the leading authorities could have been formally brought before the court, and would have radically changed the character, and probably also the issue, of the trial; 3. The instincts and the customs of all civilised nations are opposed to the hanging of the insane. (Here follow some statements from his past history, showing that it had been sought to place him in an asylum.) "If this petition for a stay of proceedings should be granted, we would further petition for the appointment of a commission composed of our best recognised authorities, who did not testify at the trial, to examine into the mental condition of

Guiteau and report thereon. In Germany and France—countries which have led the world in the scientific study of insanity—it has long been the custom to appoint such committees of experts in cases where the plea of insanity has been entered, and receive their reports *before* the trial. If this course had been pursued in the case of Guiteau, this country would have been spared the humiliation and disgrace of a protracted trial of a lunatic."

CHELSEA HOSPITAL FOR WOMEN.

At a special meeting of the governors of the Chelsea Hospital for Women, held on Monday at the temporary Hospital, King's-road, the following gentlemen were elected as additional members of the medical staff, in view of the early removal to the new Hospital in the Fulham-road, and the consequent necessity for an increased staff:—*Physicians*: John James, M.B. Lond., F.R.C.S., and Arthur Wellesley Edis, M.D. Lond., F.R.C.P. *Assistant-Physicians*: Fancourt Barnes, M.D., M.Ch., M.R.C.P.; John Phillips, B.A., M.B. Cantab., M.R.C.S.

COLLEGIATE ELECTION.

The following are the names of the eligible Fellows who are candidates for seats in the Council of the Royal College of Surgeons of England at the ensuing election on Thursday, July 6, at 2 o'clock p.m.:—1. John Marshall, Savile-row, W.; 2. Alfred Baker, Birmingham.; 3. Henry Power, Great Cumberland-place, W. (who retire from the Council in rotation). 4. George Lawson, Harley-street, W.—nominated by T. W. Nunn, Stratford-place, W.; Alfred Willett, Wimpole-street, W.; Henry Smith, Wimpole-street, W.; George Critchett, Harley-street, W.; W. Bowman, Clifford-street, W.; T. Pridgin Teale, Leeds. 5. John Croft, Brook-street, W.—nominated by F. Le Gros Clark, Sevenoaks; T. Pridgin Teale, Leeds; James F. West, Birmingham; W. Marrant Baker, Wimpole-street, W.; William Mac Cormae, Harley-street, W.; Arthur E. Durham, Brook-street, W. 6. Nottidge Charles Macnamara, Grosvenor-street, W.—nominated by W. Bowman, Clifford-street, W.; J. Fayrer, Wimpole-street, W.; Thomas Longmore, Netley; C. G. Wheelhouse, Leeds; Alfred Willett, Wimpole-street, W.; George Cowell, George-street, W.

THE INQUIRY INTO SMALL-POX AND FEVER HOSPITALS.

A MEETING of the Royal Commission on Small-pox and Fever Hospitals was held on Friday, the 16th instant. There were present—Lord Blachford, Sir James Paget, Sir Rutherford Alcock, Mr. A. W. Peel, M.P., Dr. J. Burdon-Sanderson, Dr. Alfred Carpenter, Dr. W. H. Broadbent, Mr. Jonathan Hutchinson, and Mr. Nathaniel Baker, the Secretary.

THE SALE OF TUBERCULOUS MEAT.

WHILE the Society for the Improvement of Slaughter-houses was holding its meeting on Wednesday, the 21st inst., in Jermyn-street, and hearing from its Honorary Secretary that "the existence of numerous private slaughter-houses offered great facilities for the sale of diseased meat, and allowed acts of barbarity to be committed when the inspector was not present," a case was being heard at the Guildhall Police-court, before Alderman Sir Thomas Owden, in which a slaughterman of Bideford was charged with consigning to the Central Meat Market in London the four quarters of a cow that had been wasting away from disease. The Alderman said that he found fines were of no use in these cases, and therefore he would sentence the defendant to one month's imprisonment. A few such sentences will doubtless have a salutary effect on the moral

sensibility of farmers, butchers, and others who are apt to be implicated in transactions concerning diseased animals. But a month's imprisonment is, after all, a somewhat rude way of opening the eyes of the community. We venture to say that even the veterinary profession itself is not always fully alive to the pathological significance of an old cow with shrunken flanks and a dry cough. The excellent Society whose meeting we have mentioned would be greatly aided in its efforts by the popular diffusion of some elementary knowledge of the principles of pathology, as exemplified in the diseases of the domestic animals.

THE PROFESSOR OF CLINICAL MEDICINE IN VIENNA.

THE important Chair of Clinical Medicine at Vienna—Skoda's chair—lately vacant through the death of Professor Duchek, has been offered to Professor Nothnagel, of Jena. It is not consonant with our English notions that the small country town on the Saal should be able to furnish a clinical director to the largest hospital in Europe. But Jena before now has possessed some of the most distinguished clinical teachers of the time, notably at the beginning of the present century. The example of Jena, Göttingen, and Tübingen may well serve to stimulate the Universities of Oxford and Cambridge.

UNIVERSITY OF CAMBRIDGE.

THE degree of Bachelor of Medicine of this University was conferred, on the 15th inst., on the following gentlemen:—Herbert Knowles Fuller and Jamieson Boyd Hurry, of St. John's; Thomas Finch, of Gonville and Caius; John Alfred Coutts and Arthur William Taylor, of Emmanuel; Arthur Dunville Roe, Joseph Ernest Viney, and Edward Samuel Webber, of Downing; Charles Thomas Gordon, of Trinity; and Francis Edwards, of Jesus. The following have passed the First Examination for the M.B. degree:—Class 1: Bond, M.A., St. John's; Hicks, non-collegiate; H. R. Jones, St. John's; Lister, B.A., St. John's; Nason, Downing. Class 2: Barnett, Caius; Brook, Pembroke; Carey, Emmanuel; Case, Pembroke; Clarke, non-collegiate; E. H. Cook, St. John's; Courtney, Pembroke; Crawford, B.A., Caius; Fountain, B.A., Pembroke; Godwin, Pembroke; Goulston, Clare; Hill, Clare; Kayess, Caius; King, non-collegiate; Light, Clare; G. T. Lloyd, St. John's; Maedonald, Jesus; Manby, non-collegiate; Morgan, B.A., Caius; Pierson, Trinity; L. K. Rankin, M.A., Christ's; T. Redmayne, Trinity; Saunders, Caius; Servaes, King's; Whitby, Emmanuel. The following have passed the Second Examination for the degree of M.B.:—Class 1. Habershon, B.A., Trinity; F. M. Haig, B.A., Trinity; G. D. Haviland, B.A., St. John's; Hoffmeister, B.A., Caius; Morrisson, Christ's; Reid, non-collegiate. Class 2. Agar, Caius; Bisshopp, King's; Browne, Pembroke; Brushfield, Caius; Dixon, non-collegiate; Finch, Pembroke; Fletcher, Caius; Floyer, King's; Jolly, Caius; Jones-Bateman, Caius; Leeming, Christ's; Lillburne, Clare; Lunt, Caius; Lyon, M.A., Emmanuel; Pash, M.A., Pembroke; Robbs, B.A., Caius; P. C. Scott, B.A., St. John's; Shield, Downing; Taylor, B.A., St. Peter's; Walsham, M.A., Caius; Warwick, B.A., non-collegiate; G. F. Welsford, B.A., Caius; Weston, Caius; Wigmore, B.A., Magdalene.

COLLEGIATE LECTURES.

MR. FREDERIC S. EVE, F.R.C.S., the "Erasmus Wilson Lecturer," commences his course of three lectures this day (Friday), in the Theatre of the Royal College of Surgeons, "On Cystic Tumours of the Jaws and on the Etiology of Tumours." The following is his syllabus:—Lecture I. (Friday, June 23).—Cystic Tumours of the Jaws: Multilocular Cystic Tumours, —Anatomy of—Microscopic anatomy of—Relations to rudi-

mentary enamel organ—Pathogeny—Clinical characters—Treatment indicated by Pathology—Relation to Tumours generally. Mixed Epithelial and Sarcomatous Tumours. Dentigerous Cysts. —Anatomy—Minute anatomy—Pathogeny. Periosteal Cysts. Lecture II. (Monday, June 26).—General Characters and Etiology of Tumours: Definition of—Relation to hypertrophies and inflammatory new formations—Subjection to physiological influences—Relation to physiological condition of organ—Heredity—Local origin of—Injury and inflammation, etc., as occasional exciting causes—Connexion between, shown by microscope—Effect of predisposition—Conclusions. Lecture III. (Wednesday, June 28).—Etiology of Tumours (*continued*): Bearing of Experiments on—Transplantation of adult and embryonic tissues—Transplantation and auto-inoculation of tumours—Cohnheim's theory of embryonic rudiments—Arguments supporting it—Criticism of—Comparison of congenital tumours and monsters by excess—Origin of tumours in later life—Evolution of tumours. (Lectures II. and III. are intended as an introduction to a course of lectures on the Pathology of Tumours.)

THE ABSORBENT ACTIVITY OF THE STOMACH.

A RECENT number of the *Berliner Klin. Wochenschrift* contains an article by Prof. Penzoldt and Dr. Faber (Erlangen), which is an attempt to place at our disposal a new means for diagnosis of diseases of the stomach. The observations were made with the idea of determining whether the activity of absorption of soluble substances varied in any regular manner with different affections of the stomach. The investigations were conducted thus:—The observed swallowed a gelatine capsule loaded with solid iodide of potassium, which when it arrived in the stomach was there dissolved and absorbed, and partly reappeared in the secretion from the salivary glands. Some saliva was then tested at intervals by means of starch papers and fuming nitric acid. At first a red, later on a blue, colouration was developed. In healthy subjects from seven to fifteen minutes elapsed ere the blue colour was fully obtained. Some experiments on sufferers from (1) ulcer ventriculi, (2) dilatation of stomach, and (3) ill-defined gastric disorders, were made, and the results compared with those got from healthy individuals. So far the results are of no practical value.

THE NATURAL HISTORY OF DYSMENORRŒA.

THE last two meetings of the Obstetrical Society of London have been occupied in discussing the above subject. We all know that medicine has been satirically defined as the art of putting medicines of which we know little, into bodies of which we know less. The time is past when such a statement could with any show of reason be applied to the medical art in general; but the treatment of dysmenorrhœa might, we are afraid, be only too aptly described as the application of instruments, or the performance of operations, of the effect of which little is known, to cure a disease of which less is known. The paper by Dr. John Williams, which called forth the debate, was, as one of the speakers remarked, a new departure. Instead of lauding a new remedy, devising an operation, or modifying a pessary, Dr. Williams set himself to find out something about the disease. The great divergence of opinion which was revealed in the discussion showed how little is really known about the conditions upon which dysmenorrhœa depends. According to some, flexion of the uterus is the great cause; according to others, narrowness of the external os. The facts upon which Dr. Williams based his paper led him, however, hardly to notice flexions, and to make the statement that stricture of any part of the uterine canal is infinitely rare. Now, which-

ever of these conflicting opinions be correct, it is evident that until the questions here raised are settled, there can be no rational treatment of dysmenorrhœa. It is clear that no conclusion whatever can be drawn as to effect of remedies until we have some knowledge what the course of the disease without treatment is likely to be.

ROYAL MEDICAL BENEVOLENT COLLEGE.

MR. J. F. FRANCE, who has been for many years an active and valuable member of the Council of the Epsom Medical College, and who last year purchased a perpetual presentation to the Royal Asylum of St. Anne's Society, in favour of the orphan daughters of medical men who have practised in England and Wales, and vested the nomination in the members of the Council of the Royal Medical Benevolent College, has now purchased a second perpetual presentation on the same conditions. The Council will be ready to receive applications in July, on behalf of eligible candidates.

EXTIRPATION OF THE UTERUS BY THE VAGINAL METHOD.

DR. EUGEN HAHN gives in the *Berliner Klinische Wochenschrift* his experience of this operation. He has performed it seven times, with two deaths. Five out of the seven were for carcinoma, and two for prolapse. One of the deaths was from peritonitis, and the other from bronchitis, with pelvic peritonitis and pelvic abscess, all of which conditions are stated to have been present before the operation. The following is the method of performing it practised by Dr. Hahn:—During the twenty-four hours prior to the operation the vagina is repeatedly syringed with a 5 per cent. solution of carbolic acid. Shortly before the operation, if disinfection should not appear complete, the surface of the new growth is scraped, and a 12 per cent. solution of chloride of zinc is applied. The tumour is seized with broad toothed forceps, and, by incisions round it, is separated from the healthy tissues. Anteriorly the bladder is dissected off, and the peritoneum opened; and then posteriorly the peritoneum is opened in like manner. Then the structures contained in the right broad ligament are successively ligatured from before backwards. The ligatures are passed with an aneurism needle. The tissues between each ligature and the uterus are secured by catch forceps, then the ligature tied, and the tissues divided between the forceps and the uterus. This being done, two fingers are introduced into the peritoneal cavity, and the uterus seized; and then the left broad ligament tied and cut through in the same manner as the right. The uterus having been removed, and the ligatures cut short, the abdominal cavity is washed out with a $\frac{1}{2}$ per cent. solution of salicylic acid, and all blood-clot is removed. The most minute care is taken to stop all hæmorrhage. Then the speculum is pushed up until the intestine is visible, and iodoform is sprinkled over it, and then, the speculum being gradually withdrawn, the parts exposed are likewise dusted with iodoform. Lastly, iodoform gauze is put in the vagina. In from twenty-four to forty-eight hours the dressings are usually soaked with discharge. The gauze is then removed, the vagina gently syringed with lukewarm solution of salicylic acid; the parts again dusted with iodoform, and iodoform gauze put in the vagina. This is repeated every twenty-four or forty-eight hours for eight or ten days, after which the discharge commonly ceases.

MEDICAL PARLIAMENTARY AFFAIRS.

Lead-Poisoning.—In the House of Commons, on Friday, June 16, Sir William Harcourt, in reply to Mr. Burt, said that the factory inspectors always attend inquests on persons killed in factories when they receive sufficient notice. He

promised to lay papers on the table of the House relating to the inquiry into the question of lead-poisoning in factories and workshops.

Calf-Lymph.—Mr. Dodson, in reply to Dr. Cameron, stated what has been done in the way of providing for a supply of calf-lymph to vaccinators and medical practitioners. The subject is noticed more fully elsewhere in our columns.

On Tuesday, June 20, the Bill for providing proper lodgings and accommodation for fruit-pickers, in the department of Public Health, passed through committee of the House of Lords.

DR. ROBERT KOCH, accompanied by Dr. Struck, the Director of the Imperial Board of Health at Berlin, had an audience of the Emperor on June 5, when he explained to his Imperial Majesty the results of his investigations on tubercle, and demonstrated his preparation containing the bacillus of that disease.

MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

DR. PARSONS ON THE SANITARY CONDITION OF CERTAIN DISTRICTS IN DENBIGHSHIRE.

ON January 27, 1881, the Local Government Board received from their General Inspector for North Wales, Mr. Lloyd Murray Browne, a representation to the effect that the appointment of a medical officer of health for certain districts situate wholly or partially in the county of Denbigh would be for the advantage of such districts; and Mr. Browne further stated at some length his reasons for this view. The Board accordingly wrote to the St. Asaph, Holywell, Ruthin, and Corwen Rural, and the Denbigh, Abergele and Pensarn, Ruthin, and Llangollen Urban Sanitary Authorities, informing them of the Board's intention to issue an order uniting the districts indicated, for the purpose of the appointment of a medical officer of health. To this proposal objections were received from each of the sanitary authorities concerned, and in April, 1881, the President of the Local Government Board received a deputation which strongly urged the reconsideration of the determination arrived at. In the following May the Board informed the several authorities that, in view of the objections which had been expressed, they would postpone taking further action in the matter until the following year. They added that they had not failed to observe that it was represented that the sanitary state of the places proposed to be combined was on the whole satisfactory, but that, having regard to the annual reports which they had received from such of the medical officers of health as were under their regulations, and also to the reports furnished to them during the past few years by their own medical inspectors after local inquiry into matters affecting the health of certain of the districts, they deemed it expedient that further medical inquiry should be made as to the sanitary conditions of some, or of all, the districts in question. Accordingly, in July and August, 1881, Dr. Parsons was despatched to the locality in question, to inspect and report with the view of enabling the Board to determine as to the best arrangements for the future performance of the duties of the office of medical officer of health.

It would appear that Dr. Parsons actually instituted an investigation into the whole of the eight districts interested, and furnished a separate report upon each of them; want of space, however, precludes us from giving the result of his inquiries in detail. It will be sufficient to mention that the usual defects in sewerage, drainage, water-supply, excrement removal, etc., were found to exist in greater or less degree—principally the former—and the following suggestions resulted from the inquiries and inspections undertaken. The general arguments, Dr. Parsons says, in favour of combined districts for the appointment of medical officers of health are, that by combination sanitary authorities are enabled to offer a salary adequate to command the entire services of a medical man of special knowledge, free from

the calls of private practice (most urgent at the times when, in presence of an epidemic, his services as medical officer of health are most needed), and free also from the risk of offending his private patients, and to some extent from that of incurring the jealousy of other medical practitioners—differences which often hamper the action of the medical officer of health who is in private practice. Further, a secure tenure of office during good behaviour is at least as important for the efficient discharge of the duties of medical officer of health as an adequate salary or freedom from interfering engagements. In the conscientious discharge of his duties a medical officer of health must sometimes risk incurring temporary unpopularity or offending influential personages, and if his term of office should expire before such feelings had blown over, he might lose his re-election in consequence. The chance of such an untoward circumstance occurring is, of course, the greater when the officer is subject to annual re-election, and it is, therefore, extremely desirable that any appointment which may be made shall be such as the Board may be able to sanction for a lengthened period. From the results of his inspection, Dr. Parsons is of opinion that in several, if not all, of the districts visited, sanitary administration would be better carried out than it is at present, if by some combination such as that proposed the entire services of a competent medical officer were obtained. From personal observation, and from the experience of other combined districts, he believes that the proposed district is not so large, nor so difficult of access, but that it would be perfectly practicable or an active officer to work it efficiently; and it is reasonable to suppose that a competent officer is most likely to be secured if such a salary be offered as will attract good candidates, and if the electing authorities be sufficiently numerous to counteract the influence of personal interest and local prejudice. In the present instance it would be desirable that the officer appointed should be conversant with the Welsh language. The objections entertained to the proposed combination would seem to be based, for the most part, on the question of general policy rather than on sanitary grounds; increased expense was evidently the principal drawback. These objections, which, in his opinion, deserved special consideration, Dr. Parsons has gone into at some length, but enough has been quoted to give a general idea of the nature and tendency of the reports. We believe that up to the present time no ultimate decision in this matter has been arrived at by the Local Government Board.

DR. AIRY ON THE HOO RURAL SANITARY DISTRICT.

Early in the present year Dr. Airy received instructions from the Local Government Board to institute an inquiry into the sanitary condition of the Hoo Rural Sanitary District. It may be necessary to explain that the Hoo Union occupies the wedge-shaped point of land between the Thames and the Medway. A range of high London clay, capped in some places with gravel, extends from the north-east to the south-west, breaking down steeply to the Thames marshes on the north, and sloping more gradually to the marshes of the Medway on the south-east. The whole of the district is purely agricultural, the farms being of great size; but the population is small, the recent census showing a return of 3397 persons only. This gave an increase of 254 since 1871, but such increase was principally due to the presence of a large number of navvies engaged in the construction of a new railway to the Isle of Grain. Further considerable increase may also now be expected in connexion with the development of continental traffic by this new line. The places calling for special notice were, the report says, the villages of Stoke, High Halstow, and Hoo; in the former of these the cottages were found to be generally of a poor class, and poorly provided with means of removing refuse, solid or liquid. One illustration of this will be sufficient. At Lower Stoke there is a row of decaying wooden houses called the Barracks, consisting of two rooms each on the ground floor; these cottages, five or six in number, have only one privy for the whole, standing in the front garden. It is scarcely surprising that the report records the outbreak of enteric fever at Lower Stoke in the autumn of last year, nearly seventeen cases having come to the knowledge of the Medical Officer of Health, though it is probable that there were others of which he received no information, more espe-

cially as no case was reported to have had a fatal termination. The inn where the first case occurred had often been noticed for its unsatisfactory condition; and the water-supply of the whole village was found by Dr. Airy to need thorough revision. At High Halstow, again, he found the water-supply eminently unsatisfactory; the nearest spring from which potable water could be obtained was half a mile from the village, and in bad weather the people were driven to drink from a weedy, rushy pond at the edge of a pasture outside the village, unless they could obtain a supply of rain-water from the eaves of their cottages or the church roof. Dr. Airy offered some suggestions for more fully utilising the supply of rain-water from the church roof, but unless pressure is brought to bear these are little likely to be adopted, since the report says that the state of this village "has been prominently brought before the Guardians by the Medical Officer of Health, and it is not creditable to that body that they have taken no steps to remedy the evil." At Hoo, the principal village in the district, situated near the marshes of the Medway, with a population in 1871 of 1260, water is obtained from wells from sixty to one hundred feet deep, sunk through the London clay into a water-bearing stratum of very fine sand; the water rises to within twenty or thirty feet of the surface, and well-sinkers have had narrow escapes from the rapid up-rush of the water when they have struck the sand. Most of the cottages in this village drain into a main sewer which empties itself into a brook; but there are many nuisances existing which require to be abated. Dr. Airy remarks that it may justly be inferred from his report that the sanitary administration of the district is not what it ought to be. The Medical Officer of Health and the Inspector of Nuisances are most unfairly remunerated; and in the course of his inquiry he found that these officials did not agree; and there was no harmonious action between them. His recommendations attached to the report suggest that this should be looked to, also that systematic attention should be given to the water-supply throughout the district; whilst on points relating to disposal of excrement, it might be of assistance to the Sanitary Authority to consult the Memorandum issued by the Local Government Board on this subject.

DR. PARSONS ON ENTERIC FEVER IN THE BODMIN REGISTRATION DISTRICT.

The Registrar-General's third quarterly return for 1881 having recorded that thirteen deaths from fever had occurred during the three months in the registration sub-district of Bodmin, in reference to which a note by the district registrar stated that "the thirteen deaths from fever (typhoid or enteric) are attributed to the water-supply," the Local Government Board sent Dr. H. F. Parsons to make an inquiry into the matter. The Bodmin registration district is divided into two portions, the Borough district, and the Rural district; the preliminary investigations of Dr. Parsons elicited the fact that enteric fever occurs in both districts, more or less, almost every year; that it prevailed to a greater extent than usual in the second and third quarters of 1881 (more especially in the latter); and that this unusual prevalence affected chiefly, though not wholly, the urban district. A long and searching investigation was undertaken as to sewerage arrangements, water-supply, closet accommodation, etc., the results of which are detailed at length in Dr. Parsons' report; but it will suffice here to say that, as is the case in most small rural districts—more especially in Cornwall—these matters were all found to be in a thoroughly defective condition. At the time of Dr. Parsons' visit, November 10 to 17, the fever was subsiding; only two who were convalescent remained under treatment, and no new cases had come under observation for three weeks. Up to that time the number of deaths had been nineteen, four having died since the expiration of the September quarter, and two in other districts to which they had been removed from Bodmin. There seemed no reason to doubt, Dr. Parsons states, that the epidemic was correctly described as enteric fever. The duration of the fatal cases was from eight to thirty-three days; and two proved rapidly fatal through perforation of the intestine. The mortality was high, one in three, unless there were, as is far from impossible, many non-fatal cases of which nothing was heard. As regards distribution according to locality, the cases of fever chiefly occurred along the course of the main thoroughfare of Bodmin; the eastern portion of

the town, constituting perhaps nearly one-half, appears entirely to have escaped, as also the public institutions, with the exception of a single case in July in the lunatic asylum, and an imported case in the workhouse. The sufferers in most instances belonged to the artisan and labouring class, persons in the higher social scale having escaped except in a few cases. It has also to be remarked that in a number of instances the patient was in the habit of working by day in a different part of the town to that in which he slept at night, thus introducing a difficulty in the attempt to localise the cause of his illness. Dr. Parsons points out that all the cases, indeed, with hardly an exception occurred within the area of the sewer system, but, on the other hand, parts of that area have escaped. Suspicion, again, had fallen upon the Company's water, which is frequently turbid, and is drawn in part from the river Camel, which receives the sewage of Camelford, about twelve miles above the intake, and perhaps of other places. The Medical Officer of Health for Camelford reported, however, that no cases of fever had occurred there to his knowledge, nor do the Registrar-General's returns show any deaths from fever in the Camelford sub-district; and, further, the part of Bodmin which escaped the fever is largely supplied by the Company, as are also the barracks, containing perhaps 200 inmates. Moreover, many of the persons who suffered from the fever had not drunk the Company's water. It is probable, nevertheless, the report says, that local contaminations of the water-supply may have been one of the modes by which the fever was propagated from one house to others in the neighbourhood. Not the slightest suspicion is said to have attached to the milk-supply of the town, and in none of the milk-sellers' families was fever known to have existed. Dr. Parsons thinks that on the whole the facts of the case agree best with the hypothesis that the fever was propagated in different instances by different agencies, more or less local in character. These he groups under the following headings:—Sewers and drains badly made and leaky; want of sewer and drain ventilation; contamination of wells and springs; and reflux into water-service, the supply of the locality being intermittent instead of constant. It is not necessary to follow Dr. Parsons in the arguments he adduces to substantiate the reasons at which he arrived, strengthened, moreover, as they are, by the knowledge he derived from actual observation. The moral of the present inquiry is the same as that of nearly all those instituted by the Local Government Board in similar cases. Ignorant local sanitary authorities called upon to carry out necessary improvements, the scope of which they neither approve nor understand, and stubbornly determined to restrict what they consider unnecessary expense, are not the persons to carry out the sanitary provisions of the central authority.

FROM ABROAD.

SPONTANEOUS GANGRENE OF THE SKIN.

At the Vienna Medical Society (*Allg. Wiener Med. Zeitung*, May 16), Prof. Neumann exhibited a patient, the subject of a rare if not an unique affection of the skin, viz, spontaneous gangrene. In all of the few cases resembling it which have been hitherto published there have been preceding diseased conditions of the system, and the gangrene has manifested itself in the course of some days, but in this case the acute character of the attack is the chief point of interest. The patient, an anæmic girl, eighteen years of age, and with spare menstruation, had suffered from the affection from October 15 until March 29, and had been under the care of the same medical man, who then transferred her to Prof. Neumann. The first gangrenous spots were observed in the palm of the hand, seven in number, and were succeeded by efflorescences about the size of a florin in the region of the clavicle and manubrium sterni, where nine gangrenous spots of pretty equal size were developed. Numerous gangrenous spots then succeeded each other on both arms, and finally two appeared underneath the left patella. These appearances were preceded by a burning sensation which lasted for some minutes, the skin then becoming reddened over a limited space, somewhat raised, and its

temperature increased. These spots became gradually circumscribed from the surrounding skin, and appeared first of a brownish and then of a dead-white colour. Sensation was first entirely abolished at the periphery, and in about half an hour at the centre also, the whole mass forming an eschar of the cutis. These occurrences were observed by Prof. Neumann personally on four occasions. A secretion of serous liquid also took place in the vicinity, and from some of the eschars ramifications radiated, somewhat in the matter that is observed when the surface has been struck by lightning. The sloughs separated between the tenth and fourteenth days, raised up by rapidly increasing granulations. In two sloughs which were separated by the scissors, a microscopical examination enabled the unchanged panniculus adiposus and the enlarged veins of the subcutaneous connective tissue to be distinguished. Unable to assign any cause for this diseased condition, Prof. Neumann thinks it probable that it may depend upon vaso-motory disturbance.—Docent Dr. Weiss, who had attended the case with Prof. Neumann, believes that it probably is a disease of the peripheral nerves, conditions similar to which have been described by authors, and especially by Charcot. The acute decubitus in various diseases of the spinal cord would seem to be of an analogous nature.—Hofrath Prof. Billroth said that the case gave him the impression of an artificial disease, and that he suspected that the girl was guilty of some deception. The diseased parts look as if caustic potash had been passed over them. The case bore no relationship to the one described by Raynaud, which was that of a delicate anæmic French woman. The blood ceased to circulate in the ends of her fingers, which became blue, and then gangrenous. The granulations which succeeded were pale and flaccid, so that many months were required before cicatrization could be procured. But here we have a strong and well-fed girl, the parts which it is pretended are spontaneously attacked corresponding neither to the course of a nerve nor to that of a vessel, while the granulations which succeed to the fall of the slough are splendid, and almost characteristic of caustic eschars. How are we to explain why portions of the skin which are said to have spontaneously mortified on account of defective nutrition should afterwards manifest such powerful recuperative power? "If we are not in the presence of a miracle—and I am no believer in miracles—the case is absolutely incomprehensible. On the other hand, it is only too well known what hysterical women will do to render themselves interesting—swallowing needles or sticking them into their persons, or inflicting severe pain upon themselves in other ways. The first thing to be done here is to ascertain whether this girl is not practising an intentional deception."—Prof. Neumann opposed this view energetically, stating that the eschars produced by caustic potash had quite another appearance (Hofrath Billroth observed that other caustic substances might have been used). "And then I have expressly stated that I have observed the case. The parts of the skin attacked first became raised and reddened, and then lost their colour, a white, and only later a brown, eschar forming. I have described the case as unique, and cannot believe that any deception is being practised. We have here to do with a disease."—Hofrath Billroth added, "I can only repeat to you the words of my teacher Romberg, 'Never believe a woman, even when she appears to be dead.'"—Prof. Auspitz could not regard this case as an example of symmetrical gangrene, although he could not go so far as Prof. Billroth and explain it by declaring the woman an impostor. In analogous cases a more or less complete stasis of the bloodvessels or cessation of nerve-function has been adduced; but a case like this he had never met with.—Prof. Neumann promised to comply with a suggestion made by Prof. Albert, that the sloughs should be chemically examined, to ascertain whether they had been produced by the influence of mineral acids or caustic alkali.

A LARGE BRAIN.—Dr. Charles Tomkins, of Richmond, reports the case of a negro who recently died of phthisis, and whose brain weighed seventy ounces. The man was thirty-two years old. He was of large build, and six feet two inches high. He had been twice a murderer and twice in a lunatic asylum. When sane he was considered stupid.—*New York Med. Record*, May 26.

OPIUM-SMOKING IN FORMOSA.(a)

By W. W. MYERS, M.B., C.M., of Takow, Formosa.

I AM aware that in trenching on this subject I enter upon very debatable ground, and I am not unmindful of the strong opinions held on both sides of the question; but I can at least say that I have neglected no opportunity during the past ten years of closely investigating the matter, while circumstances have more than once been particularly favourable for making the necessary observations.

Looking back at many of the various arguments produced on either side, it has often struck me that their force has in several instances been modified by the uncontrolled enthusiasm of the disputants. Thus, those who argue from the "no injury" point of view are very apt to run into the extreme of asserting "positive benefit"; while those, again, who urge that the use of opium is noxious to health and prosperity, too frequently ascribe to it a universality of destructiveness which cannot be borne out, save in cases where intemperance in the use of the drug is as marked as is the violence of language adopted by its critics.

I think I may fairly claim to rank among those who speak from an entirely disinterested point of view, and, therefore, for the purpose of this Report, I put for a moment aside the moral aspect of the question, and, confining myself simply to the professional bearing of the subject, narrate as shortly as possible the observations I have made, and leave in great part to others the task of drawing what conclusions they think proper from the data I shall attempt to lay before them.

In Formosa the use of opium is indulged in by a great proportion of those of the inhabitants who are either themselves immigrants or the descendants of colonists originally coming from the mainland. In the south part of Chêhkiaug, where I was before coming here, the opium pipe is also in very general requisition. It would seem to me that both here and generally over China the smokers may be divided into two classes 1. A minority, who, being either officials or well-to-do persons, can afford to give vent to their passion, and indulge to an extent which would in many cases quite justify the worst that has been said as to the effects and consequences of the vice; and 2 The majority, consisting of persons who are obliged to work hard for a living, and among whom moderation is the rule. I am bound to say, however, that even among the former the use of the drug is usually for a considerable time tempered with more or less moderation, and that many years of unimpaired usefulness are thus enjoyed ere that condition is attained which so justly calls for commiseration.

Here, as elsewhere, the grand prompter to excess is the co-existence of that idleness which in many parts of the world is often thought to be the privilege of wealth. Hence, as far as my inquiries go, we do not meet the extreme effects of over-indulgence so frequently among officials, or at any rate so early a manifestation of its most baneful effects, as among those who, independent of exertion, give themselves up entirely to that indolence which is prone to seek among the vices generally for relief from otherwise unbearable ennui. On the other hand, it is not quite fair always to attribute to opium-smoking those fearful concomitant vices which are often depicted as its consequences. That they are frequently coincidences, or that they sometimes precede and at others follow, indulgence in opium, I am aware; but still, though excessive smoking may hasten the effects of a general moral depravity, I am inclined to think it is much more often rather a sequence than the cause.

Taking one from this class as a type of opium-smoking carried to its dire end, we shall find that probably he began smoking from ten to twenty or thirty years previously. When young, and before becoming entirely enslaved, he smoked from one to two mace weight per diem. The increase in quantity was probably gradual during the first ten years, until at the end of that time it reached, say, three to four mace in the day. During this period he did not feel much the worse for his habit. He smokes thrice daily—once in the forenoon, again after the mid-day meal, and finally in the

(a) Extracted from the *Medical Reports of the Imperial Maritime Customs of China* for the Half-year ended March 31, 1881.

evening. This latter extends more or less far into the night, in proportion to the degree of his infatuation.

Presume him to be an official, or a man who, though well off, is still engaged in some business occupation, and so long as the requirements of his business necessitate diurnal briskness, he may not exceed the maximum I have stated; but should either the advance of his prospects render further excess possible, or an inability or disinclination to resist the allurements of the drug prompt him, the progress is rapid, until he reaches a daily consumption of from seven mace even up to one tael. With this advance begin those outward manifestations of decaying mind and enfeebled body which have been so often depicted. The pipe is seldom out of his mouth; his hours of mental lucidity become fewer and fewer; he scarcely ever obtains natural sleep; he wakes dull and heavy, to be briefly flashed into temporary consciousness by the first whiff of his pipe, quickly relapsing into semi-stupor. His bowels are constipated for periods sometimes of ten days; his appetite is almost gone, his digestion of the weakest; he becomes sexually impotent; and so on, until at last, intensely anæmic, extreme debility is further aggravated by the characteristic diarrhœa, and he finally passes away unregretted from the world in which for so long he can scarcely be said to have mixed.

Opium-smokers will tell you that there is a point (varying with different men, and regulated by the general energy of their lives) up to which they can go with impunity. One very intelligent old gentleman, who said he had smoked for thirty years, and at that time seemed to be, as he said he was, tolerably healthy, told me that he never exceeded a certain quantity, in fact, that this was the maximum he allowed himself on festive occasions; but that there was a lower rate, which was quite sufficient to give him all the satisfaction he required, and this was his ordinary allowance. He had varied but little, he said, for the last fifteen years, and felt no irresistible temptation to do so. He was fifty years of age, and was engaged in active mental occupation as a large merchant. He thoroughly enjoyed his pipe, and admitted he could not do without it. He suffered from constipation to a greater extent than non-smokers do (the Chinese generally are much subject to this), but he was not aware that it affected him. He ate well, and after his evening pipes had sound and refreshing sleep, rising about eleven o'clock each day. He was not by any means impotent either as to desire or efficacy, and pointed to a son aged four years as a proof of this. He said that, as far as he knew, many others were like him, and that although, of course, there were several who made no effort to control the amount of opium used, still he did not think until the evening of life came it was by any means the rule for opium-smokers to abstain from doing so. He instanced officials who, he said, often adjusted their indulgence by the leisure available, *i.e.*, the rank or appointment they held. Of course there were many cases of persons who rushed deeply into the bonds of opium; "with them there was no thought of what amount could be borne, but rather, it would seem, what quantity could be consumed in the time vouchsafed."

Not taking all my friend said as being literally exact, still I found it a very good standard for comparing my own observations, and I have been struck by the amount of truth there was in the statement. That point of there being the safe and satisfying maximum to which every man might, with comparative impunity, indulge, seems curious, but I have been repeatedly assured of it by many most confirmed opium-smokers. Several that have admittedly gone far beyond it, and were exhibiting all the consequences of their imprudence, have told me the same, and in their own cases have named the date from which they reckoned their downfall. I have also made a point on many occasions of closely questioning and examining those who have avowedly kept within the alleged limits of immunity, and I have seen no reason to question their assertions. I may here mention an interesting fact, and that is, that in the case of the poorer classes, to be hereafter spoken of, under pressure due to reduction of means, a comparatively small amount of opium suffices to overcome or satisfactorily modify the craving and other unpleasantness which, as far as I could discover, invariably follows a sudden cessation of the accustomed indulgence. The highest amount smoked in a single day with *alleged* safety was five, while the lowest rate quoted was three, mace; but it must be remembered that Chinese of this class would scarcely notice anything that did not inter-

fere with, say, six or eight hours' attention to duties, shorten life, or set up some marked manifestations of illness, and thus, probably, if we contrasted the condition they call perfect with that we should describe as belonging to the typically healthy, we should find several shortcomings. Again, it must be remembered in quoting these quantities that the manner of smoking has to be taken into account; the affluent rapidly refilling the bowl, and not nearly exhausting the charge, which often affords considerable enjoyment to humbler votaries, who re-smoke it.

To turn to the other class (and this includes a vast proportion of the general public), one will be really surprised to find how comparatively few there are who indulge to disastrous excess. Case after case will be met of men, even in the lowest ranks of life, who have smoked regularly for from ten up to twenty or even thirty years, and who, as far as we can discover, show little or no signs of mental or physical degeneration. Taking the average amount of opium consumed by these, I found it to be from one to two mace per diem. Here in Southern Formosa there is a class of men—including the coolies, chair-bearers, and couriers—who daily do an amount of physical work that is remarkable in its extent. These have for years been in the habit of taking a certain quantity of opium during the day, seldom or never varying it; and they assert that by so doing they at least attain a greater degree of comfort in carrying on their labours, and, with but very rare exceptions, I must admit that I have failed to obtain evidence which would justify me in attributing any marked harm to their habit.

Of course, among every class of men there are those to whom moderation is impossible, and who, in the gratification of their desires, will drag themselves and those dependent on them to the lowest misery. This we find one of the greatest evils connected with alcoholic intemperance; but I must say that my experience, both here and in other parts of China, would go to support the statement that the use of opium through the medium of a pipe does not, at least up to a certain point, so irresistibly and inherently tend to provoke excess as undoubtedly is very often the case with the stimulants commonly indulged in by foreigners. Were the seductive powers of opium so great and cumulatively overwhelming as has sometimes been asserted, I cannot but think that among the class of which I am now speaking—dependent, as most of them are, for a livelihood on their exertions—we should have a very much greater number of instances of its disastrous effects on purse and person; but I do most conscientiously state that, although I have met with instances in which the effects were most marked and deplorable, still, when considered in numerical relation to the numbers who smoke opium, I have been struck with their paucity, and my preconceived prejudices with reference to the universally baneful effects of the drug have been severely shaken.

If I were asked the question as to whether I believed the use of opium necessary, or even harmless, I should be inclined to reply that both queries required specific and relative answers. We know in medicine that under certain conditions the exhibition of opium is not only gratefully but beneficially borne, and that this is in direct relation to the cause which called for the administration—*e.g.*, pain. Without going deeply into the *rationale* of the process, the physiologist could perhaps imagine a condition such as might be induced by arduous physical or mental toil, where the moderate use of opium might be even beneficial, or where at least, by imparting comfort, its injurious effects (if any) might be neutralised. We know well that the population of China—I am now alluding to that portion which, while forming the vast majority, would be those who could least afford to indulge in a practice materially affecting either their health or their fortunes,—I say we know that these are, as a rule, industrious and laborious to a degree. Whether they could get along just as well—nay, perhaps better—if for opium were substituted some less suspicious restorative (*e.g.*, better and more nourishing food), is a suggestion that would undoubtedly admit of interesting consideration; but as I am at present only dealing with the state of affairs as we find them, I need not dwell further on the question of possibilities.

Again, whether in view of the enormously preponderating amount of opium cultivated in China, the Indian drug should ruffle the sensitiveness of our national conscience to the extent some would seem to think proper, or whether the

obstacles (if any) to international *entente* are so much supported by the import of opium, *per se*, as by the various unpleasant incidents of a past, when other articles of import had little or no chance of acting as irritants, I take it does not concern me at present.

As contrasted with the drunkard, the opium sot decidedly has the advantage—that is, as far as his bearing to his fellow-beings goes: for whereas one, under the influence of liquor, is noisy, quarrelsome, and often dangerous, the drug-gard (if I may for convenience coin a word) is at least quiet and orderly. That abuse of alcohol is a marked factor in the production of crime of the most heinous nature all will admit; while, as far as I can learn, opium comparatively seldom leads to crime, and even then this rarely, if ever, attains to higher dignity than petty theft.

Dr. Tanner, in his standard work on Practice of Medicine, suggests, in the case of confirmed dipsomaniacs, the substitution of opium-eating for wine-bibbing as the lesser of the two evils. Opium-eating, however, seems to me to stand on a very different footing from smoking. It would appear that when taken by the stomach incessant and cumulative craving is much sooner set up; that rapid increase of dose is absolutely necessary; and that the drug soon obtains the mastery, concentrating, both in time and vigour, its most disastrous effects. Except at advanced stages of the opium-smoker's career, one does not hear of sufferings and other manifestations such as have been so graphically depicted by De Quincey; but at a very early period the opium-eater begins to complain and show marked symptoms of the sad effects of his vice. I have had some opportunity of contrasting the two effects, and I feel justified in asserting that smoking as compared with eating opium is as different as the excesses of the *bon vivant* are from chronic, hopeless dipsomania. The smoker may, after a comparatively long period, reap the painful fruits of his indiscretion; with the eater the consequences begin almost directly.

We must also consider the difference between the two modes of introduction into the system, the one process by which but a small proportion of the drug consumed can obtain access, and the other by which not an atom of the poison can escape, added to which are the local derangements set up in the alimentary canal by repeated calls for an exercise of its functions on that which, by mere contact, proves injuriously obstructive to the natural processes exerted for its assimilation.

This brings me to the subject of remedies for the cure of opium-smoking, and the question as to whether it is advisable, to however slight an extent, to substitute for the inhalation of the drug its administration in solid form.

Medical men in China have, as far as I know, as a rule, followed the plan of giving opium or morphia combined with some strong tonic, such as quinine or strychnine, gradually and rapidly decreasing the amount of opium and increasing the dose of tonic, adding iron or some similar medicine, until the patient has lost the desire and been strengthened by the remedies administered. The late Dr. Osgood, of Foochow, was, I am told, the first to commence the cure of opium-smoking by immediate and total deprivation of the drug, substituting for it chloral hydrate, which, with tonics, he gave in the form of pill. Dr. Dudgeon, of Peking, from his recent strong denunciations of the use of opium in the system of cure, I assume also disapproves of the old method; and I observe that Dr. Lyall, of Swatow, treats all his cases without opium. I myself have hitherto followed the beaten track; and provided, of course, the patient is watched and the opium rapidly diminished, good results have followed the treatment. I have, however, been led to fear that the number of smokers really desirous of being cured is very small; and too often application to the foreign physician is merely to tide over some temporary inability to procure the drug, to which they return as soon as circumstances prove favourable.

One of the greatest obstacles to the permanent cure of opium-smoking in individuals, as I am convinced it will prove the great bar to all efforts at putting down the general use of opium in China, is the despotism of the tyrant Fashion. To present the pipe, to join in its participation, has become the almost universal sign of courtesy and hospitality. No business can be completed or acquaintanceship inaugurated without its aid; and, in fact, it would be a tremendous strain on the not unlimited moral courage of the native were he to refuse to present or join in the fashionable civility. In some

few instances a show of privacy is kept up, but I have reason to think that even this semblance of deference to those theoretical moral platitudes Chinese know so well how to write and utter is fast passing away; and I am bound to admit that, although I have in my time had a considerable number of applicants for treatment, and many have undoubtedly been "cured," I cannot recall a single instance where I was sure relapse after a longer or shorter time did not take place; and it was ever the same excuse—"I can't help it; my friends all smoke, and if I do not they will leave me, and I shall lose my business," or "face," as the case may be.

I think all medical men agree that unless patients are under immediate observation, little can be done; and if the remedy used contains opium, and this be dispensed to all and sundry, facilities are offered for setting up the greater evil of opium-eating. As a fact, this has actually happened in Formosa. Several years ago, at the missionary hospital at Taiwan-fu, the cure of opium-smoking used to be effected by pills in the first instance, containing opium combined with strong tonics. Of course the patients obtaining the pills were kept under the supervision of the doctor and had their doses of opium rapidly diminished until total deprivation was arrived at; in a word, they were treated in the usual and rational way. Observing, however, that opium administered by the mouth proved for the time as effectual as smoking, and naturally ignorant of the more speedy disaster liable to follow its habitual use in this form, having also its great cheapness to support it, some of the old *employés* of the hospital have, by means of their agents, instituted an enormous sale of so-called "great foreign opium pills." In some cases these pills are made from crude opium purchased in the native shops, but in the majority of instances are manufactured with the pulvis opii of the Pharmacopœia or with muriate of morphia. The opium pills contain from three-quarters to one grain, made up with some aromatic mess obtained in the Chinese medicine shops, and the morphia pills from a quarter to half a grain of the alkaloid, prepared in a similar way. The first are sold at about two-thirds of a cent, and the others at one cent each. They are dispensed indiscriminately by natives all over the country, though the chief depôt is at Taiwan-fu. I need hardly say that this is done entirely without the cognisance, still less approval, of those whose name is audaciously appropriated. The result is that opium-eating is now becoming very common in the south of Formosa; and although it does not by any means supersede the use of the pipe, still, whenever from pecuniary or other causes this would not be convenient or available, resort is had to the pill. One grain of morphia or two grains of opium swallowed is found to be equivalent to one mace of the preparation smoked; one mace equal to about fifty-eight grains.

To give an idea of the consumption of morphia, I may state that one man in Taiwan-fu alone imports upwards of one hundred ounces of morphia per annum, which he uses in the manufacture of these pills.

Applicants at either the Taiwan-fu or Takow Hospital are now treated without either opium or its alkaloid; but, in my experience at least, as soon as the patients discover the absence of their favourite drug, the anxiety for cure vanishes, as does also the *soi-disant* penitent.

THE LATE SIR JOHN ROSE CORMACK.—At a meeting of the friends of the late Sir John Rose Cormack, at the house of Dr. Semple, on Monday last, it was decided to organise a committee in London for the purpose of raising a fund for the benefit of Sir John's family; for, notwithstanding the devotion of a long and laborious life to his profession, he has died without leaving any provision for his widow and children. A committee for the same purpose has already been formed in Paris, and subscriptions have been forwarded to that quarter. The London Committee consists of Sir J. Risdon Bennett, Dr. Quain, Dr. A. P. Stewart, Dr. B. W. Richardson, Mr. W. H. Michael, Q.C., Dr. Thudichum, Dr. McIntyre, Dr. Semple, and Dr. A. Henry (secretary). Dr. Semple was appointed chairman of the Committee, and Dr. B. W. Richardson treasurer. The following subscriptions, which are exclusive of any sent elsewhere, have been received:—Sir James Paget, Bart., £5 5s.; Dr. Quain, £5 5s.; Sir J. Risdon Bennett, £5 5s.; Dr. B. W. Richardson, £3 3s.; Dr. A. P. Stewart, £3 3s.; Dr. Semple, £3 3s.; Surgeon-General Gordon, £2; Dr. Paul, £1 1s.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 13.

JOHN MARSHALL, F.R.S., President, in the Chair.

BEFORE proceeding to the business of the evening, the President said that the proposed subscription to the Harvey Tercentenary Memorial Fund only amounted to thirty guineas, of which twenty had been subscribed by the Council. He hoped that further subscriptions from the Fellows would be forthcoming.

THE ACTION OF SALTS OF POTASH, SODA, AND AMMONIA ON THE FROG'S HEART.

Dr. SYDNEY RINGER and Dr. HARRINGTON SAINSBURY contributed a paper concerning the action of salts of potash, soda, and ammonia on the frog's heart. Experiments were made during the months of November and December, 1881, January and the early part of February, 1882, the special object of which was to compare the salts of soda, ammonia, and potash in respect of their action. The ventricle of the frog's heart was selected for this purpose; it was fed with a mixture of saline ($\frac{3}{4}$ per cent.) and a solution of dried bullock's blood. To the circulating fluid the drug to be tested was added. The contractions of the heart were recorded on a revolving cylinder. The drugs were tested in two directions—1. As to their influence on the spontaneous working of the heart. 2. As to their influence in modifying the effect of continuous faradisation. The effect of continuous faradisation applied to the undrugged heart is a condition of continuous contraction, *i.e.*, a spasm of greater or less extent. A certain strength of current and frequency of interruption is, however, required for the above effect. To this persistent spasm, the chief factor in which is fusion of neighbouring contractions, the term "tetanus" is applied. Marey has principally described tetanus of the heart, though before him Luciani had drawn attention to the subject. The chief point of interest about cardiac tetanus is, that, given a minimal stimulus, adequate to cause contraction of the heart, repetition of this, however great the frequency, will not cause fusion or spasm. The necessary element, a certain frequency of repetition being given, is increase in the strength of the current. In this respect cardiac tetanus contrasts with that of a skeletal muscle. The explanation, according to Marey, is briefly stated as follows:—The excitability of the heart is a varying quantity. During the period represented by each systole it is at a minimum; and a minimal stimulus is during this period ineffectual above a certain frequency of minimal stimuli. Further increase will hence be ineffectual, since those stimuli, acting during the above "refractory period," will be without effect. Increased strength of currents, however, lessens this period; and above a certain strength of current every stimulus is responded to, and fusion—*i.e.*, tetanus—results. The results here obtained were in accordance with Marey's statements; and his further statement, that heat diminished, whilst cold prolonged, the refractory period, was also confirmed; since, other things being equal, heat favoured the production of tetanus, whilst cold hindered it. Tetanus, or continued contraction, is facilitated by three modes—1. By diminution of the refractory period, whereby fusion is favoured. Increased strength of current will do this; rise of temperature also. Further, certain drugs will do this; such are said to increase excitability. 2. By prolonging the duration of each beat. 3. By the induction of a state of persistent spasm, probably of the nature of tonus. It is clear that, other things being equal, second and third must aid the production of tetanus as above defined. [For a description of the persistent (tonic?) spasm referred to under third, see *Journal of Physiology*, December, 1881.] The effect of exhaustion was tried, but it did not appear to facilitate or impede the production of tetanus. Hydrate of soda, ammonia, and potash were tested. As regards their effect—as favouring or hindering the production of tetanus—soda was found to favour tetanus, ammonia also, and, in a marked degree, potash from the very com-

mencement hindered the production of tetanus. In the later stages a curious effect was noted: the faradisation, instead of tending to produce tetanus, now showed an opposite tendency—it suppressed the spontaneous beat. Of these three bases, then, soda and ammonia go together as increasing faradic excitability, and contrast strongly with potash, of which the action was exactly opposite. The influence of drugs on the spontaneous working of the heart was next examined. The following were examined:—Hydrate of potassium, the iodides, bromides, and chlorides of sodium, ammonium, and potassium, also the citrates of these three bases. Amongst the results obtained the most striking was this, that the action of a drug on a rhythmically contracting tissue may show itself in two directions—1. It may affect the contraction-rate; 2. It may affect the actual value of the beats themselves. In all the cases examined both were affected, but unequally; with one drug the stress would fall on contraction-rate; with another on the value of the beats themselves. For the term "contraction-rate," the word "excitability" has been substituted; for the "value of the beats," the word "contractility." These substitutes are taken to represent that which underlies the one and other manifestation. The reasons for the choice of the term "excitability" are stated in the paper. The question then arises, Are excitability and contractility intimately connected? Does action on the one necessarily involve action on the other, or may they be more or less dissociated and separately subject to influence? The evidence points very clearly to dissociation, for neither qualitatively nor quantitatively does there appear to be any constant relation between the two. Thus, increased frequency of contraction may be accompanied at one time by increased height of beat, at another by diminished height, and this not only in the case of different hearts, but even in the same heart. Then, again, in respect of quantitative relation, one finds at one time and in the same heart marked effect on excitability, with little noticeable effect on contractility—*i.e.*, there may be marked slowing, with scarcely affected height of trace; at another time, with little appreciable effect on frequency, the stress now falls on contractility. Hence one may speak of a drug as acting on either excitability or contractility, and the results summarised are—That in no case examined was the action exclusively in one or other direction; this will probably hold for all drugs. That the degree in which one or other suffers varies with the drug. Thus, with the chlorides, bromides, and iodides of the bases sodium, ammonium, potassium. The salts of sodium and ammonium affect excitability but slightly, whilst those of potassium affect excitability markedly; and thus, whilst it was the exception in the case of the latter not to get permanent arrest of spontaneous beats before contractility was destroyed with the salts of ammonium and sodium, it was the exception when spontaneous beats did not continue up to the very end, and, moreover, with a final frequency little short of, often in excess of, the original frequency. In respect of influence on excitability, ammonium and potassium form the extremes; sodium is intermediate, though much nearer ammonium than potassium. As to the action on contractility, the quantities of the drugs used constitute the measure of the activity. For the exact quantities reference must be made to the original paper; but stated approximately, potassium and ammonium come very near together, whilst a very wide gap separates these from sodium salts. Thus the highest estimate would represent the sodium salts of this group as one-tenth as poisonous as the potassium and ammonium salts. It is important not to take action on contractility as the exclusive measure of poisonous action, for arrest may also be effected by action on excitability, and from a clinical standpoint "arrest" is that which concerns us more immediately than the precise "mode in which." Hence, in order of poisonous action we have—First, potassium salts most poisonous—both excitability and contractility powerfully affected. Next, ammonium salts: excitability practically unaffected; contractility powerfully affected. Then (a wide gap separating), sodium salts: excitability slightly affected, but contractility suffering chiefly. The therapeutic importance of these results is obvious; the more so, that the iodides and bromides of potassium and ammonium are so very largely used. The inference, it must be observed, from the ventricle tied on to the cannula, to the entire organism, is simply to this extent:—Under simple conditions it is found that one drug is far more active than another; is it

not fair to assume that it will still prove itself more active under more complex conditions—at any rate, under such as the organism as a whole presents? Hence these experiments would suggest the substitution of the bromides and iodides of sodium in preference to those either of potassium or ammonium, and that of these two the ammonium salt is to be preferred to the potassium salt. The suggestion has the greater force that, so far as clinical experience goes, the salts of sodium and ammonium would appear to be as effective as those of potassium. One or two points remain. Thus, throughout the salts of potassium—examined from the hydrate to the citrate—certain characters are found to be in common. The same holds for ammonium salts. The sodium salts are, for reasons given in the paper, less fitted for comparison. Thence, confining the attention to the salts of ammonium and potassium, the fact to be pointed out is, that along with identity of base goes similarity of action. It is further pointed out that this last implies that elements entering into combination do not lose their individuality of action; and this may possibly account for an apparent discrepancy between the results here given and clinical experience, for, as here given, the citrates of potassium and ammonium are at least as poisonous as the bromides, iodides, and chlorides—a result quite opposed to clinical experience, but not irreconcilable, if but one side, as it were, of a drug is here taken into account. Finally, experiments on the citrates of sodium, ammonium, and potassium were made. The results were very similar in kind to those already obtained, and the general statements applying to the chloride group may be extended to these salts. The chief points to be noted are that in respect of the sodium salt the citrate was, at the lowest estimate, doubly as poisonous as the sodium salts of the chloride group; still, even this leaves it only one-fifth as poisonous as the ammonium and potassium citrates. That the ammonium and potassium citrates are about as poisonous as the salts of these bases belonging to the chloride group. These numbers refer alone to the effect on contractility, for in respect of excitability there was much less tendency towards inhibition with potassium citrate than with the potash salts of the chloride group. It may be stated, in conclusion, that the essential points which these experiments establish are—1. The twofold mode in which drugs may affect the cardiac tissue, viz., in respect of excitability and contractility. 2. The relative activity of the salts of sodium, ammonium, and potassium under similar conditions. Both of these points, but especially the latter, have very practical outcomes.

ADDITIONAL CASES OF OSTEITIS DEFORMANS.

Sir JAMES PAGET narrated the particulars of seven cases of osteitis deformans which he had observed since the publication of his paper on the same subject in vol. lx. of the *Transactions*. They all confirmed the description there given, and were adduced as further evidence that the disease to which the name was given had well defined and distinctive characters justifying its being regarded as a special form of inflammation of bones. This affection usually concerned many bones, most frequently the long bones of the lower extremities, the clavicles, and the vault of the skull. The affected bones became enlarged and heavier, but so weakened that those which carried weight or bore much muscular straining bent and became curved or misshapen. The disease was slowly progressive, giving rise to rheumatoid pain in the affected limb and increased heat in the tibia. These symptoms were not constant nor felt in all the bones. No special disturbance of the general health attended the affection. In all the twelve cases, except the last, the persons were over forty years old when the disease began. There was no inherited relation observable to any disease except gout. The posture, general appearance, and movements of the patients had been alike in all the cases, and often sufficed for the diagnosis.

Mr. BRYANT said that since the reading of Sir James Paget's last paper he had seen two other cases, both females, and much about the same time. One was aged fifty-three, and for years she had suffered great pain in the legs. The tibiae were broad, the femora thickened, and their necks shortened. The crest of the ilium was thickened, as was the spine of the scapula. She habitually supported her body by means of her hands resting on the knees when sitting. The chin projected. Her father had died of cancer. When seen a year later she had lost an inch in stature, and

the bones were thicker. The other patient was aged fifty-four. She complained of constant pain and weakness in the legs. Her knees when seated were a foot apart. The bones of the upper and lower extremities were both thickened, but not the ilium. The ribs were close together. Here also was a history of cancer. Both seemed fairly well; the patient he saw first was still alive and pretty well, the bones were thicker.

Dr. BARLOW had under his care for some time a female patient, aged forty-three, the subject of this malady, but there were strongly marked rheumatic antecedents. She suffered severe pain in the legs and arms. There was thickening and bending of the radius, humerus, tibia, clavicle, jaws, and head. After two years, malignant disease developed, and of this she died. There was no special affection of the backbone.

The PRESIDENT said that in conversation Sir James Paget had suggested to him that this might be really a new disease due to new conditions of life, rather than an old one unobserved. He thought some light was thrown on its nature by its frequent connexion with cancer, which would tend to classify it among the diseases of degeneration in advanced life.

CASES OF MALIGNANT PUSTULE.

Dr. J. N. C. DAVIES-COLLEY read notes of two cases of malignant pustule, with a table of seventeen cases which had been treated at Guy's Hospital; together with a report of the microscopical examination of sections from the skin of the cheek affected with charbon, by Dr. F. Charlewood Turner. In this paper Dr. Davies-Colley has tabulated seventeen cases of malignant pustule or charbon which have occurred during the last nine years at Guy's Hospital, and he has given more fully the details of two which were admitted into his wards last year. *Case 1.*—F. R. aged thirty-one, worked in a hide warehouse, and had been engaged for eight days with Australian fleeces. On April 10, 1881, a small red spot appeared on his right lower eyelid. It grew rapidly. On the 16th he was admitted, with the eye closed, and with a partly dry, partly vesicular, eschar covering nearly the whole of the swollen lower eyelid. He was in little pain, but weak, trembling, and feverish. The glands were swollen. Immediate relief followed the excision of the eschar. In a few weeks the wound had healed, but the eyelid remained everted. Bacilli were found in the blood at the time of the operation. *Case 2.*—T. W., aged thirty-nine, a tanner, had been handling foreign hides until July 2, 1881. He then left off work, and on July 6 noticed a red itching swelling on the cheek. It grew rapidly. On the 10th, loss of appetite; and on the 11th he was admitted with a raised nearly circular patch of more than one inch in diameter in the middle of his cheek. The centre of this patch was slightly depressed, dry, and nearly black. The sides were covered with small, closely packed vesicles. There was swelling of the cervical glands and œdema of the neck. The eschar was excised, and chloride of zinc applied. He recovered rapidly. A coloured drawing of the charbon, and drawings of the microscopic sections of the eschar, showing the bacilli anthracis in the corium and round the hair follicles, were shown. The author wished to call attention to the following facts:—1. Malignant pustule or charbon is not infrequent among tanners and wharf-labourers who have to handle foreign hides and fleeces. 2. It has not yet been observed at Guy's Hospital as a primary disease in the viscera, or in the form of malignant œdema of the integument. 3. It has been seen only on exposed parts of the body—e.g., the face, neck, and arms—the most dangerous position being the neck, probably from its vicinity to the larynx. 4. The seventeen cases were between the ages of eleven and forty-seven, and the majority were young adults of the male sex. 5. Twelve out of seventeen cases occurred in September and the four following months. 6. The disease may be confounded with malignant facial carbuncle, poisoned wounds, and primary chancres of the face. The chief points to notice are the painless character of the eschar, its vesicular margin, and slightly depressed, dry, blackish centre. 7. The nature of the disease is not unfrequently overlooked, and its symptoms have been attributed to such causes as the bite of a mosquito, or the absorption of arsenic through an abrasion. 8. It should be treated at once by excision or free cauterisation. Out of fifteen cases in which the eschar was excised, eight were already suffering from constitutional symptoms, and twelve

had considerable œdema or glandular enlargement, yet all but recovered. The two cases in which excision was not performed were admitted with dyspnoea and other serious symptoms, and it is probable that in them the operation would not have averted the fatal result. 1. Swelling up of the most superficial part of the cutis, with the formation of a ring of papules surrounding a zone of vesicles, at the centre of which is an eschar, is the earliest change recognised. 2. That bacilli are present in their papules, but not beyond them, being—3. Numerous in the tissue of the cutis immediately below the eschar, and above to its borders, and most abundant just below the Malpighian layer of the epidermis covering the outer part of the eschar.

The PRESIDENT said he thought the case of the gentleman referred to had come under his notice, and he did not consider it a case of charbon. The gentleman had been at the Oxford and Cambridge boat-race on a very hot day, and was bitten under the chin by a fly. He died very soon of acute septicæmia. The bite had been either poisonous from the first or had been poisoned by scratching from matter under the nails.

Mr. BRYANT was sure the disease was not sufficiently recognised, and he ventured to suggest that the very case mentioned by the President was an instance in point. The central black eschar and indurated and reddened base could hardly be mistaken, and early recognition was of the utmost importance, as immediate operation was necessary, even in doubtful cases, especially where the charbon was situated on loose connective tissue. In his own case, though soon operated on, the œdema spread to the glottis and killed the patient.

THE OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 7.

Dr. MATTHEWS DUNCAN, President, in the Chair.

TWISTING OF PEDICLE IN AN INCIPIENT DERMOID OVARIAN CYST.

Mr. ALBAN DORAN showed a specimen of this condition. The patient, aged thirty-two, was operated upon for a cystic tumour of the left ovary, which reached two inches above the umbilicus, and proved to be dermoid. After its removal a tumour of the right ovary was discovered—also dermoid. Its pedicle was long and twisted, and entirely reduced to white fibrous tissue, all traces of its normal components being lost. The interesting clinical feature in the case was that the patient experienced an amount of pain and discomfort altogether out of proportion to the size of the tumours; and Mr. Doran thought that the condition of the pedicle of the smaller tumour was the true cause of these symptoms.

ACCIDENTAL REMOVAL OF UTERUS—RECOVERY.

Mr. HOPKINS WALTERS (Reading) exhibited a uterus with one ovary and Fallopian tube and a piece of omentum that had been torn away by a midwife in the attempt to remove an adherent placenta. The patient made an excellent recovery. He hoped at a future meeting to communicate a full account of the case.

OOPHORECTOMY FOR UTERINE FIBROIDS.

Mr. KNOWSLEY THORNTON showed the ovaries and tubes removed from a woman, aged forty-four, to check hæmorrhage from uterine fibroids. The ovaries were enlarged and cystic, and the tubes were closed at their extremities and full of semi-purulent fluid. They were buried in adhesions, so that the operation was difficult. The patient recovered. He had now removed the ovaries five times for fibroids, once for fibro-cystic disease of uterus. One of the former cases was only a partial success; in the others, the hæmorrhage ceased, and the uteri in a few months became atrophic.

Dr. HEYWOOD SMITH had had a case in which during the first week after the operation the uterus shrank one and a half to two inches.

UTERUS OF PATIENT ABOUT TO MENSTRUATE.

Mr. WALTER GRIFFITH showed a uterus, with microscopic sections, taken from a woman, aged twenty-nine, delivered five months previously, who died from hepatic abscess, having at the time of her death believed herself about to

menstruate. The mucous membrane was thickened, red, infiltrated with blood, but not detached nor degenerated. The sub-endothelial layer of the internal coat of the arteries of the muscular tissue was enormously thickened.

Dr. JOHN WILLIAMS remarked that this thickening was constantly seen after parturition.

MISSING ABORTION.

Dr. CAMPBELL POPE showed an ovum and placenta removed after dilatation of the cervix, in what there was reason to think was the eighth month after conception. The ovum presented the appearance of about six weeks' intra-uterine age.

FIBROID TUMOUR OF OVARY.

Dr. CARTER exhibited a tumour of the right ovary, weighing three pounds, which he had removed from a patient aged twenty-nine. It was homogeneous in structure, consisting of fibrous tissue with a varying amount of non-striated muscle. The tumour was wedged into the pelvis, reaching to within an inch and a half of the perineum; and there was ascites and œdema of legs, which Dr. Carter ascribed to the pressure of the tumour. Drainage was used after the operation. The patient did well, and the dropsy rapidly passed away.

Mr. DORAN referred to a case formerly reported, which was at first supposed to be fibroma, but subsequently ascertained to be sarcoma. The presence of ascites was in favour of the view that Dr. Carter's case was one of sarcoma. Pathologists were slow to distinguish between the spindle-shaped cell of sarcoma and the similarly shaped one of uterine fibro-myoma. It was reasonable to believe in the possibility of fibro-myoma of the ovary; but clinical phenomena, pointing to innocence or malignity, must be taken into account.

THE NATURAL HISTORY OF DYSMENORRHOEA.

The adjourned debate on Dr. John Williams's paper on this subject was resumed by Dr. GERVIS, who, after expressing his admiration of Dr. Williams's paper, said that he thought dysmenorrhœa in single women was very commonly acquired. He agreed with Dr. Williams as to the beneficial effect of childbearing, but thought that sterility was the rule. The statement with regard to imperfect development of the uterus he thought was too absolute. Stricture of the uterine canal, either actual, from stenosis, or virtual, as from ante-flexion or endocervicitis, he had found extremely common. The most usual changes in the uterus in primary dysmenorrhœa were corporeal hyperplasia, endometritis, and endocervicitis; but many showed no evidence of secondary inflammatory disease. Ovaritis he thought a very frequent consequence. The statement that menstrual pain was the result of spasm he thought applicable only to cases in which there was obstruction. There were other varieties of menstrual pain, dependent on uterine congestion and ovarian complications.

Dr. ROUTH thought that dysmenorrhœa was often acquired, and that it was most frequent in sterile women. In every woman the mucous membrane of the uterus was swollen at the beginning of menstruation, and obstruction might thus be caused, which would not be detected by an examination made at any other time. Obstruction and pain often resulted from the presence in the flow of clots and membranes. Sometimes the uterus was morbidly sensitive in consequence of chronic inflammation, as in the condition he had called fundal endometritis. One case of dysmenorrhœa was what he would call "retrogressive suction"—secretions of the cervix or vagina being drawn up into the uterine cavity, and there exciting irritation and inflammation. This probably was the explanation of intermediate dysmenorrhœa. His principal objection to Dr. Williams's paper lay in his total neglect of uterine flexions and versions as causes of dysmenorrhœa. Sometimes the uterine cavity was twisted and bent in several different ways; such he had ventured to call a "corkscrew uterus." There were other cases of "ball-and-socket" flexion; and these conditions were very powerful causes of dysmenorrhœa. He had seen cases which convinced him that the unimpregnated uterus could and did contract; and he thought that such contraction to overcome some kind of obstruction gave rise to the phenomena of dysmenorrhœa.

Dr. HEYWOOD SMITH regarded dysmenorrhœa as a

symptom only. He thought that most women suffering from primary dysmenorrhœa were sterile. The changes in the menstrual flow were different, according to whether the dysmenorrhœa were ovarian or uterine. In the majority of cases the uterus was of normal size. Erosion, eversion, catarrh, areolar hyperplasia, ovaritis, and perimetritis, he thought were causes, rather than consequences, of dysmenorrhœa. The accompanying hypertrophy he thought more often due to subinvolution. The kind of pain was different in uterine dysmenorrhœa from that in ovarian. Fatty degeneration of the decidua was the natural means whereby it was broken up and loosened from its attachments.

Dr. GALABIN agreed with Dr. Williams as to the frequency with which shreds of membrane were found in the flow. He had repeatedly found entire uterine glands in these shreds. He thought the author went too far in ascribing menstrual pain universally to spasm, for he thus excluded congestive dysmenorrhœa. He (Dr. Galabin) believed that there was an active flux of blood to the uterus during menstruation, and that secondary dysmenorrhœa was commoner in single women than Dr. Williams had found it. There were many cases in which the primary pain was very slight, and it depended very much on the questioner whether the case were classed as primary or secondary. Intermittent pain was not necessarily due to muscular action. He thought the frequency of imperfect development of the uterus had been rather over-estimated.

Dr. CHAMPNEYS especially admired the method of the paper: the cases were observed undisturbed by topical experiments. This was a new departure. He could not agree that dysmenorrhœa was only a symptom, and should not be studied apart from the changes which produced it, for our knowledge of these changes was very scanty. He remarked the conspicuous absence of any solidarity between dysmenorrhœa and flexions.

Dr. RICHARD T. SMITH thought that the lithæmic diathesis was one of the most common causes of dysmenorrhœa, the pain being probably due to local congestion. He would be glad of an explanation of the fact that, with an acute flexion, menstruation might be painless for one or two periods, and subsequently, the local condition remaining the same, be very painful.

Mr. HOPKINS WALTERS (Reading) thought that acquired dysmenorrhœa in single women was very frequent, and was often due to sedentary occupations, and constipation, which led to congestion, and subsequent secondary changes; and that such cases might often be relieved when treated in their early stages.

Dr. ROGERS thought that acquired dysmenorrhœa in single women was frequent. He could not agree with the author as to the frequency of clots or shreds, nor as to the rarity of stricture; and he believed that flexions and displacements play an important part in the production of dysmenorrhœa.

Dr. HAYES had found dysmenorrhœa chiefly associated with a conical cervix and a small external os. He believed this form of cervix was a continuation of the foetal condition.

Dr. GODSON considered that everything depended on the character and severity of the dysmenorrhœa. In slight cases, fertility was common; in severe ones, rare.

Dr. JOHN WILLIAMS said his paper referred to primary dysmenorrhœa alone. Glands were found in the membranes expelled, although often their epithelium had fallen out. Dr. Savage's remarks as to the length of the broad ligaments did not explain cases in which the uterus lay close to the pelvic wall. He thought that pregnancy did take place in imperfectly developed uteri, and that such a condition was the cause of some abortions and premature labours. In the great majority of cases of dysmenorrhœa the os externum is well formed; and in some a No. 10 bougie readily passed into the uterus. He did not think that dysmenorrhœa was due to retention. The pain he believed due to spasm caused by a peripheral irritant, and did not think that in the great majority of cases stenosis had anything to do with it. Ovarian dysmenorrhœa was not included in the paper. There was no evidence that the menstrual flow was regulated by the ovaries. The changes referred to by Dr. Heywood Smith as causal, could not have been present at puberty. He thought congestion had its place in some kinds of dysmenorrhœa, but not in that occurring at puberty. When ovaritis came on in consequence of dysmenorrhœa, he thought the patients were generally sterile.



OBITUARY.

THOMAS BEVILL PEACOCK, M.D., F.R.C.P.

THE late Dr. Peacock, whose death on May 30 has been briefly noticed in our pages, was a member of the Society of Friends. He was a son of Thomas Peacock, a Quaker, and a merchant of York, in which city Thomas Bevill (so named after his mother's family) was born on December 21, 1812. After a sound general education he was apprenticed to Mr. John Fothergill, a surgeon, of Darlington, and with that gentleman he remained during, we believe, the full period of the old customary five years' apprenticeship. He then, in 1833, came to London, and entered as a medical student at University College, where he had for his teachers Elliotson, Antony Todd Thompson, Carswell, Samuel Cooper, and Richard Quain. But University College Hospital, or, as it was at first called, the "North London Hospital," was not opened for the reception of patients till November, 1834, and young Peacock went to St. George's Hospital for hospital practice. In 1835 he became a Member of the Royal College of Surgeons of England, and we believe a Licentiate of the Society of Apothecaries. Next, his health having become delicate, he made two voyages, in 1835 and 1836, to Ceylon. Early in 1838 he became House-Surgeon to the Infirmary at Chester, where his family were then living, and held the appointment for four years, working at medicine, surgery, and pathology with the persistent, steady industry, zeal, and conscientious thoroughness that characterised him throughout life. In 1841 he went to the University of Edinburgh, where he graduated in 1842, and acted for a while as House-Physician and as Pathologist to the Royal Infirmary. In 1843 Dr. Peacock came to London, began practice as a physician, and in 1844 became a Licentiate of the Royal College of Physicians. His first public appointment was as Physician to the Aldersgate-street Dispensary, and shortly afterwards he was elected on the staff of the Royal Free Hospital. About this time also, at Dr. Peacock's instance, some men of wealth and position in the City, such especially as the Gurneys, Barclays, and Tuckers, were incited to establish in the City a dispensary for diseases of the chest, which rapidly, and again chiefly through Dr. Peacock's influence and persistence, developed into the well-known Victoria-park Hospital for Diseases of the Chest, the new Hospital having been opened for the reception of patients in 1854. To this charity Dr. Peacock was Physician for many years, and was Consulting Physician at the time of his death. In 1849 Dr. Peacock was elected Assistant-Physician to St. Thomas's Hospital, an appointment won, it may be fairly said, by the reputation he had acquired through his excellent work at the Aldersgate-street Dispensary and the Royal Free Hospital. At St. Thomas's, his character, his large and accurate professional knowledge, and the high value of his work were quickly recognised and appreciated, and he became a prominent power. He served the Hospital and its medical school most loyally and excellently well, as teacher, as lecturer first on *Materia Medica* and afterwards on *Medicine*, and as Physician, till he retired from active work in the institution, and was appointed Consulting Physician to it in 1877. He was an untiring and most methodical worker, and a very frequent contributor to the literature of the art and science of medicine. One of his earliest works was a treatise "On the Influenza or Epidemic Catarrhal-Fever of 1847." In 1854 he delivered at St. Thomas's Hospital a series of lectures on "Malformations of the Heart," and these, which were published at the time in our columns, were developed into his classical work on "The Malformations, etc., of the Human Heart," a second edition of which was called for in 1866. His lectures on "The Varieties of Continued Fever and their Discrimination" were delivered at St. Thomas's Hospital in the latter part of 1856, and these also were published at the time in the *Medical Times and Gazette*. In 1865 he wrote a valuable "Report on Diseases of Metalliferous Miners" for the Mines Commission; in the same year he delivered the Croonian Lectures of the Royal College of Physicians, "On some of the Causes and Effects of Valvular Disease of the Heart"; and in 1877 he published his work on "Prognosis in Valvular Disease of the Heart." These constituted his most important works; but he contributed a very large

number of papers to the medical journals, the St. Thomas's Hospital Reports, and to the *Transactions* of the Medico-Chirurgical, the Anthropological, and especially the Pathological, Societies. Of the last-named Society, Dr. Peacock was one of the original members, and a most zealous and constant promoter and supporter: he served it as Secretary, was for many years member of the Council, and was President in 1865-66. In 1850 he was elected to the Fellowship of the Royal College of Physicians, and he served the offices of Councillor, Censor, and, as has been already noted, of Croonian Lecturer. He was Physician to the National Provident and to the Friends' Assurance Society. In 1868 he was, in conjunction with Dr. Wilks, the first appointed Examiner in Medicine to the Royal College of Surgeons of England, and in 1876 he was awarded the Honorary Gold Medal of the College in recognition of his presentation of a valuable series of pathological preparations to the Hunterian Museum. Moreover he had for many years a large practice. But all this did not nearly fill his life. He had a passion for travelling, and great admiration for and knowledge of architecture and painting. His tastes and gifts outside his profession were, however, known to but comparatively few, even of his friends. For, though a man of great kindness of heart, and a warm, true, and constant friend, Dr. Peacock was by nature, and we suppose by his Quaker training and education, very grave, reserved, and undemonstrative. Only to those who knew him intimately was the whole man revealed. One of these few a fellow-worker with him for many years in hospital and insurance work, writes to us:—"Dr. Peacock was exact and conscientious in hospital work in the highest degree. Every observation, either in the hospital or the dead-house, passed through his subtle mind cautiously and slowly; and came out as a fact beyond doubt or challenge. His works, therefore, bear the stamp of authenticity that places them among the classic contributions to our science for all time. He was a great traveller; and in his travels cultivated his natural tastes, and elevated them to a rare degree. He thus cultivated his taste for painting and architecture. He had studied with care, and with the help of great intelligence and power, the works of most of the great masters in these two departments of art almost throughout Europe; and had formed a judgment on them that struck everyone with whom he conversed on these subjects as being singularly clear, original, and just. I remember well how glowingly he expatiated on the remains of Moorish art after travelling through the Spanish peninsula in order to see them for himself; and illustrated his remarks by the splendid photographs he had gathered together. He was also an ethnologist of no mean repute; and to his observations in connexion with anthropology, Broca, Topinard, and others attached considerable weight. As a geographer too, few, perhaps, were better informed. He was extremely tolerant, and an advocate of liberty in its best sense; but he always, however, expressed himself as on the side of constituted order."

In 1850 Dr. Peacock married Cornelia Walduch, a Dutch lady of the same persuasion as himself. But they had no children, and in 1869 she died, to his great and lasting sorrow. In 1877 he was seized, without any warning, with left-sided hemiplegia, just as he was going to the banquet at the Royal College of Surgeons, after Sir James Paget's Hunterian Oration. This illness led to his resigning his public appointments; but after a few months he recovered so far as to be able to resume practice, to take again part in the meetings and proceedings of his favourite societies, and to contribute of his ripe knowledge to the medical journals. The final attack of disease struck him on the afternoon of May 30, while he was showing some friends round St. Thomas's Hospital, to which he was still Consulting Physician; and he died the same evening in a ward that had been under his own charge during his days of active hospital work.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on June 15:—

Kealy, John William Gregory, Gosport.
McDougall, Herbert Alan Hosier, Winchester.
Papillon, James William, Reading.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Dodd, Henry Work, St. Bartholomew's Hospital.
Lane, Frederick Herbert, University College.
Mitchell, Walter Fredk., St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

ALEXANDER, THOMAS, M.D.—Medical Officer for the Government Railway Service at the Cape of Good Hope.
BARNES, FAN COURT, M.D.—Assistant-Physician to the Chelsea Hospital for Women.
EDIS, ARTHUR W., M.D., F.R.C.P.—Physician to the Chelsea Hospital for Women.
ODLING, ALFRED E., M.R.C.S.E., L.S.A.—House-Surgeon to the Croydon General Hospital, *vice* Mr. Walter Cooper, resigned.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Staff-Surgeon Samuel Bamfield has been promoted to the rank of Fleet-Surgeon in her Majesty's Fleet, with seniority of the 12th inst.

BIRTHS.

BENHAM.—On June 13, at 22, Museum-street, Ipswich, the wife of Henry James Benham, M.D., of a son.
BRITTAN.—On June 2, at Gwynfryn, North Wales, the wife of F. Brittan, M.D., late of Clifton, Bristol, of a daughter.
BURN-MURDOCH.—On June 18, at St. Bride's, Morningside, Edinburgh, the wife of T. Burn-Murdoch, M.B., C.M., of a daughter.
PARROTT.—On June 13, at The Thorn, Hayes, Middlesex, the wife of E. J. Parrott, L.R.C.P., of a son.
ROUTH.—On June 18, at 33, Marina, St. Leonards-on-Sea, the wife of A. Curtis Routh, M.R.C.S., of a son.
SPURGIN.—On June 19, at Moreton, Ongar, Essex, the wife of Thomas Spurgin, M.R.C.S., L.R.C.P., of a son, stillborn.
SYKES.—On June 17, at 7, Thayer-street, Manchester-square, W., the wife of John F. J. Sykes, M.B., B.Sc., of a son.
WHITMORE.—On June 19, at 24, Ovington-gardens, the wife of William Beach Whitmore, M.B., of a son.

MARRIAGES.

CHITTY-DUNNETT.—On June 14, at Dedham, Essex, Alfred Goldney Chitty, M.R.C.S., L.R.C.P., L.M., of Huddersfield, to Ellen Amanda, daughter of W. H. Dunnett, Esq., of Stour House, Dedham.
HALLWRIGHT-WYBROW.—On June 15, at Bournemouth, Matthew Hallwright, M.R.C.S., of Stirling House, Hagley-road, Edgbaston, and Summer Hill, Birmingham, to Emma Janet, daughter of William Wybrow, Esq., of Ravensbourne Lodge, Bromley Common, Kent.
HUDSON-DURANTY.—On June 14, at Liverpool, Edmund Lord, son of E. L. Hudson, M.R.C.S., to Selina Jane, daughter of the late Alexander Duranty, Esq.
POWELL-CUMINE.—On June 13, at Paddington, Henry Albert Powell, M.A. Oxon., M.R.C.S., of Elm Cottage, Beckenham, to Eveleen, daughter of the late Rev. James Cumine, M.A., rector of Kilpipe and Preban, county Wicklow, Ireland.
RISDON-DUNNING.—On June 15, at Winkleigh, George Owen Risdon, L.R.C.P., of Wells, to Annie Louisa, daughter of the late R. Dunning, Esq., of Townsend, Winkleigh.

DEATHS.

DOUBLEDAY, EDWARD, L.R.C.P., F.R.C.S., L.S.A., at Long Clawson, Leicestershire, on June 18, aged 83.
HEALE, ALFRED, M.R.C.S., at Warwick, on June 15, in his 70th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BOROUGH OF SOUTH SHIELDS.—Medical Officer of Health. (*For particulars see Advertisement.*)

BRADFORD INFIRMARY AND DISPENSARY.—House-Surgeon. Candidates must be registered medical and surgical practitioners, and not under twenty-eight years of age. Applications, stating age, with copies of recent testimonials as to moral character and professional ability, to be forwarded to William Maw, Secretary, on or before July 3.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—Assistant-Physician. (*For particulars see Advertisement.*)

CUMBERLAND INFIRMARY, CARLISLE.—House-Surgeon. Applications and testimonials to be sent to the Secretary, Joseph Lowthian (from whom all particulars can be obtained), on or before June 27.

EVELINA HOSPITAL FOR SICK CHILDREN, SOUTHWARK-BRIDGE-ROAD, S.E.—House-Surgeon. (*For particulars see Advertisement.*)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—Assistant-Physician. (*For particulars see Advertisement.*)

HOSPITAL FOR WOMEN, SOHO-SQUARE.—House-Physician. (*For particulars see Advertisement.*)

INFIRMARY OF THE CITY OF LONDON UNION.—Assistant Medical Officer and Dispenser. (*For particulars see Advertisement.*)

METROPOLITAN ASYLUMS BOARD.—Medical Officer. (*For particulars see Advertisement.*)

LIVERPOOL DISPENSARIES.—Assistant Resident House-Surgeon. Candidates must forward their applications, stating age and qualifications, together with testimonials and registration certificates, to R. R. Green, Secretary, Liverpool Dispensaries Office, Liverpool, not later than June 23.

YORK COUNTY HOSPITAL.—Honorary Physician. Candidates must be graduates in medicine of one of the universities recognised by the Medical Council of the United Kingdom, and Fellows or Members of the Royal College of Physicians of London, or Fellows of the Royal College of Physicians of Edinburgh: they must not practise or be connected in partnership with anyone who practises surgery, pharmacy, or midwifery. Applications, with diplomas and testimonials, to be sent to the Secretary, Robert Holtby, on or before June 24. Election on July 11.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Banbury Union.—Mr. Thomas Hill has resigned the Middleton Cheney District: area 6428; population 2438; salary £53 per annum.

Beaminster Union.—The Misterton District is vacant by the death of Mr. A. G. Cox: area 5031; population 1557; salary £40 per annum.

Brentford Union.—Mr. R. C. Litchfield has resigned the Ninth District: area 2240; population 12,479; salary £90 per annum.

East Retford Union.—Mr. Henry Raynes has resigned the Gringley District: area 12,227; population 2887; salary £28 per annum.

Gainsborough Union.—Mr. R. H. Dawson has resigned the Newton-on-Trent District: salary £24 per annum.

Market Bosworth Union.—Mr. Robert Cook has resigned the Desford District: area 8008; population 2086; salary £35 per annum.

Pocklington Union.—The Pocklington First District is vacant by the resignation of Mr. C. E. B. Danson: area 18,677; salary £40 per annum.

Ringwood Union.—Dr. Samuel Sumner Dyer has resigned the Union and the Workhouse: area 34,348; population 5397; salary £115 per annum; salary for the Workhouse £20 per annum.

APPOINTMENTS.

East Ward Union.—Matthew Robinson Fairer, M.B., C.M., and L.M. Edin., to the Ravenstonedale District.

Thirsk Union.—Edward M. Laffan, L.R.C.P. Edin., L.R.C.S. Edin., to the Kilburn District.

Tiverton Union.—Abraham S. Connellan, L.R.C.S. Ire., L.A.H. Dub., to the Bradninch District.

Winslow Union.—Thos. F. Vaisey, M.R.C.S., L.S.A., to the Workhouse.

APPOINTMENTS FOR THE WEEK.

June 24. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

26. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Mr. Frederic S. Eve, "On the Etiology of Tumours." Lecture I.

27. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

STATISTICAL SOCIETY, 4 p.m. General Anniversary Meeting.

ANTHROPOLOGICAL INSTITUTE (4, St. Martin's-place, W.C.), 8 p.m. Mr. Villiers-Stuart, M.P., "Note on some Egyptian Antiquities." Dr. Becher, "On some Mexican Terra-Cotta Figures." Mr. E. H. Man, "On the Aboriginal Inhabitants of the Andaman Islands" (Part III.).

28. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Tatham.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Mr. Frederick S. Eve, "On the Etiology of Tumours." Lecture II.

29. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

30. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 17, 1882.

BIRTHS.

Births of Boys, 1213; Girls, 1230; Total, 2493.

Corrected weekly average in the 10 years 1872-81, 2512·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	665	670	1335
Weekly average of the ten years 1872-81, corrected to increased population ...	718·5	671·7	1390·2
Deaths of people aged 80 and upwards ...	...	...	44

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	9	6	1	13	...	...	...	5
North ...	905947	2	5	8	6	25	...	1	...	10
Central ...	282238	1	1	2	3	5	...	...	...	2
East ...	692738	1	2	8	4	18	...	...	...	11
South ...	1265927	11	15	6	6	27	...	9	1	14
Total ...	3816483	15	32	30	20	88	...	10	1	42

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29·791 in.
Mean temperature ...	...	...	...	...	...	53°1'
Highest point of thermometer ...	...	...	...	...	...	67°8'
Lowest point of thermometer ...	...	...	...	...	...	40°9'
Mean dew-point temperature ...	...	...	...	...	...	45°0'
General direction of wind ...	...	...	...	...	...	Variable.
Whole amount of rain in the week ...	...	...	...	...	...	0·42 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 17, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending June 17.	Deaths Registered during the week ending June 17.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)		Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.		Weekly Mean of Daily Mean Values.	In Inches.
London ...	3893272	2493	1335	17·9	67·8	40·9	53·1	11·73	0·42
Brighton ...	109595	78	37	17·6	65·3	41·0	53·1	11·73	0·31
Portsmouth ...	129916	104	56	22·5	...	...	...	...	...
Norwich ...	83821	53	19	11·2	...	...	...	...	...
Plymouth ...	74449	38	21	14·7	66·1	43·7	53·9	12·17	0·12
Bristol ...	210134	144	62	15·4	64·0	40·2	50·1	10·06	0·18
Wolverhampton ...	76756	49	29	19·7	60·4	41·0	48·4	9·11	0·96
Birmingham ...	408532	290	148	18·9	...	...	...	...	...
Leicester ...	126275	103	39	16·1	...	...	...	...	...
Nottingham ...	193578	145	78	21·0	68·1	39·1	50·8	10·45	0·25
Derby ...	83587	51	29	18·1	...	...	...	...	...
Birkenhead ...	86532	46	24	14·5	...	...	...	...	...
Liverpool ...	560877	387	250	23·3	60·1	43·9	49·6	9·78	1·12
Bolton ...	106767	90	40	19·6	59·5	39·0	47·0	8·33	2·48
Manchester ...	340211	260	150	23·0	...	...	...	...	...
Salford ...	184004	147	71	20·1	...	...	...	...	...
Oldham ...	115572	91	52	23·5	...	...	...	...	...
Blackburn ...	106460	84	48	23·5	...	...	...	...	...
Preston ...	97656	84	49	23·2	...	...	...	...	...
Huddersfield ...	83418	48	36	22·5	...	...	...	...	...
Halifax ...	74718	47	27	18·9	...	...	...	...	...
Bradford ...	200158	120	77	20·1	63·9	41·0	49·7	9·83	0·31
Leeds ...	315998	222	122	20·1	64·0	41·0	50·8	10·45	0·28
Sheffield ...	290516	207	91	16·3	65·0	40·0	50·1	10·06	0·67
Hull ...	158814	115	62	20·4	66·0	40·0	49·5	9·72	0·47
Sunderland ...	119055	92	55	24·1	66·0	39·0	50·9	10·50	0·19
Newcastle ...	147626	103	53	18·7	...	...	...	...	...
Cardiff ...	83724	76	19	11·4	...	...	...	...	...
For 28 towns ...	8469571	5764	3079	19·0	63·1	39·0	50·5	10·28	0·60
Edinburgh ...	232440	166	76	17·1	65·2	38·4	50·4	10·22	0·69
Glasgow ...	514048	355	224	22·7	...	...	...	...	...
Dublin ...	348293	200	123	19·3	61·5	35·6	50·5	10·28	0·55

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·79 in. The lowest reading was 29·60 in. on Wednesday evening, and the highest 30·04 in. on Friday at noon.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Provincial Fellow.—At the last election of Fellows into the Council of the College, only ninety-three provincials voted. Perhaps the following analysis will be interesting to you:—The total number of Fellows who recorded their votes was 313, viz., metropolitan 189, provincial 93, no address 18, Naval surgeons 2, Indian Army 1. The election will take place on July 6.

"First Aid" Instruction at the Royal Naval School, New Cross.—At the distribution of certificates awarded by the St. John Ambulance Association, last week, to twenty-two pupils who had attended the classes at this School, Surgeon-Major Evatt, R.A., the examiner, stated that he had found the boys well trained in the anatomy of the body and proficient in the binding-up of injuries. The pupils had shown great aptness in receiving instruction.

Philanthropy.—Sir Greville Smyth has offered the Bristol Town Council, for the use of the citizens, a pleasure park of twenty-two acres on the borders of the populous parish of Bedminster, adjoining his estate, Ashton Court. The Corporation has accepted his munificent gift.

M.D., Lincoln.—Before coming to London, Mr. Joseph Swan, of Tavistock square, did practise in Lincoln. He died October 4, 1874, aged eighty-three, at Filey, in Yorkshire, and was there buried. A biographical notice appeared at the time in the *Medical Times and Gazette*.

The Liquor Question, Grangemouth.—Judgment has now been given in the appeal of the Earl of Zetland v. Hislop and others, in which the appellant sought to reverse the judgment of the Court of Sessions in Edinburgh, dismissing four actions against tenants of his lordship to prohibit the sale of any kind of malt or spirituous liquors in the buildings held by them under lease. Their lordships remitted the cause to the Court of Session, with a declaration that the actions must proceed, and allowed costs.

A Dean.—We hardly think with you that the Secretary of the College of Surgeons should be required to send, for the purpose of your test examinations, the dates of all the meetings of the Board and Court of Examiners. They are always advertised in the medical journals, and the Calendar of the College will give you the probable meetings of both.

Not a Bad Retort.—In his cross-examination of the surgeon, the serjeant said that a doctor ought to be able to give an opinion without making a mistake. The surgeon replied, "They are as capable as lawyers." The serjeant said, "A doctor's mistakes are buried six feet under the ground, a lawyer's are not." "No," said the surgeon, "but they are sometimes hung as many feet above ground."

Neglect of Duty by a Local Authority.—For neglecting to carry out the provisions of the Act respecting the employment of children, the Lords of the Committee of the Privy Council on Education have dismissed the members of the School Board for Barmby-on-the-Marsh, near Howden, Yorkshire, and have themselves appointed a new Board of five members.

Amicus.—The resolution of the Birkenhead Council affecting Dr. Vacher is in connexion with the analytical department of the Birkenhead Corporation, where his experiments had had some conflicting and unsatisfactory results. The obvious intention of the resolution is to induce him to tender his resignation as public analyst. Dr. Vacher has earned a high reputation as a medical officer—a position which, of course, he will retain.

The New Asylum, Glasgow.—The Committee appointed by the City of Glasgow Parochial Board to inquire into the matter have presented their report, which deprecates the proposal of erecting the new Asylum at Carnwath, and recommends that a site should be selected not further than twelve miles from the city.

The Alleged Poisoned "Hot Cross Buns."—The buns which caused poisonous effects in Inverness on Good Friday have been analysed by a chemical analyst employed by the Crown, and the report of the Crown Office is that no arsenic was found in the buns or in any part of the matter of which they were made; neither was any trace of arsenic discovered, nor any trace of metallic poison. There was, however, an alkaloid substance possessing irritant qualities. This was present in a recognisable quantity, but its exact nature has not been determined. This result, if a final one, is extremely unsatisfactory.

Vigilans.—The Bill repealing the law which directs coroners to order the bodies of persons against whom a verdict of *felo-de-se* has been returned, to be interred in a public highway, has passed the House of Commons, and is now before the House of Lords.

Vaccination at Leicester.—Twenty-nine persons were summoned last week in this borough for non-compliance with the Vaccination Acts. There are several thousands of unvaccinated children in the town, and two officers have to devote all their time to summoning parents for default. In almost every case the old pleas (conscientious objections, and illness and death in their families caused by vaccination) have been urged. A fine of 10s., or seven days' imprisonment, was inflicted in each case.

A Model Workhouse Infirmary.—A deputation of the Salford Board of Guardians to the Local Government Board, as to the management and classification of the new hospital at Hope, were highly congratulated by Dr. Mouat on the public spirit they had shown in establishing such an excellent hospital, which the Local Government Board considered to be one of the best pauper hospitals in the country, and the plan of which would have been awarded a first-class certificate at the late International Sanitary Exhibition had it not been for the double wards.

A Very Young Men's Society.—In Kent, a band of young men, it is said, have established a Society for the "Protection of the Natural Form of Woman"; and, according to one of the rules of the Society, bind themselves, "by demonstration, argument, and entreaty, to induce their sisters and all ladies who are injuring their bodies for the sake of fashion, to sever the remaining link which connects the present generation with barbarism." By another of the laws the members promise to live a life of protest against the fashions so prejudicial to health. The young women had better retort in kind.

Physical Education and the School Board, Manchester.—The School Board of this city has arranged for giving evening classes in drill for youths who have left school. The fee for attending these classes is one penny a week. Competent instructors have been engaged, and it is hoped that this effort to promote the physical welfare of boys who have gone to work will be appreciated.

Longevity.—The instance to which you refer was noticed in the *Times* several years ago. The register of Shoreditch parish contained an entry relating to Thomas Cam, who died in 1588 at the age of 207, having lived in the reigns of twelve sovereigns. As Sir Harry Ellis, in his "History of Shoreditch," put down the age at 107, the register was examined. It was found that one had been altered to two rather recently, possibly by some one who wished to poke fun at the antiquaries.

The Royal Masonic Institution for Girls.—The bad sanitary state of these school buildings was brought before a special general court of the governors a few days since. A resolution was adopted to carry out the recommendations in the report of the House Committee on the question, at an estimated expense of £1300.

Railway Continuous Brakes.—The Duke of Westminster's letter to a morning contemporary, on the authority of his estate surveyor, may well create uneasiness to owners and occupiers of houses in the neighbourhood of the underground railways. The continuous brakes are, it seems, the cause of the mischief. Since this system has been adopted on railways under or near houses in London, the inhabitants declare that their dwellings have become scarcely inhabitable, and are likely to fall from excessive vibration. By decisions in our law courts, railway companies are free from any liability for compensation in respect to vibration.

COMMUNICATIONS have been received from—

THE SECRETARY OF THE OBSTETRICAL SOCIETY, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Deputy Surgeon-General MOORE, Bombay; Mr. KNIGHT, London; THE SECRETARY OF THE PHILADELPHIA COLLEGE OF PHYSICIANS, Philadelphia, U.S.A.; THE SECRETARY OF THE MEDICAL DEFENCE ASSOCIATION, London; THE EDITOR OF THE "NEW YORK MEDICAL JOURNAL," New York; Mr. JOSEPH BELL, Edinburgh; Dr. ANGEL MONEY, London; Mr. J. CHATTO, London; THE SECRETARY OF THE CHELSEA HOSPITAL FOR WOMEN, Chelsea; Lord ABINGER, London; THE REGISTRAR-GENERAL FOR SCOTLAND; Dr. COPELAND, London; THE DIRECTOR OF THE ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, London; THE SECRETARY OF THE SWEDENBORG SOCIETY, London; THE SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY, London; THE CROWN AGENTS FOR THE COLONIES, London; THE SANITARY COMMISSIONER, Punjab; Dr. GUY, London; THE SECRETARY OF ST. JOHN'S HOSPITAL, Leicester-square, London; THE REGISTRAR-GENERAL FOR MELBOURNE; THE SECRETARY OF THE EAST LONDON MISSION, London; Mr. LAWSON TAIT, Birmingham; Dr. R. H. SEMPLE, London; Dr. STANSFELD, London; Mr. W. THOMSON, Dublin; THE SECRETARY OF THE ROYAL COLLEGE OF SURGEONS, Edinburgh; Mr. J. S. WOOD, London; Mr. F. STEVENS, London; THE SECRETARY OF THE FRENCH HOSPITAL AND DISPENSARY, London.

BOOKS, ETC., RECEIVED—

Report on the London Water Supply—Lehrbuch der Physikalischen Heilmethoden, von Dr. M. J. Rosbach—Spasmodic Asthma, by W. E. Steavenson, M.B., M.R.C.S.—Annual Report of the University College Hospital, St. Pancras—Diagnosis of Skin Diseases, by R. Liveing, M.D.—Sabbat des Sorciers, par Bourneville et Teinturier—Outlines of the Science and Practice of Medicine, by William Aitken, M.D., F.R.S.—Die Topographische Percussion im Kindesalter, von Dr. Hermann Sahli—Ueber akute Herzerweiterung, von Dr. M. Heitler—Mineral Waters, by J. Milner Fothergill, M.D.—The Physiology and Pathology of the Blood, by Richard Norris, M.D., F.R.S.E.—Holidays in Spain, by F. R. McClintock—

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Le Concours Médical—Ciencias Medicas—Gazzetta degli Ospitali—Canadian Journal of Medical Science—Journal of the British Dental Association—Le Courrier des Sciences—Oracle—New York Medical Journal—Journal de Saxon—Nordiskt Medicinskt Arkiv—Australian Medical Gazette—La Independencia Médica.



INDEX.

A

Abdomen, diseases of the, symptomatology of, Dr. Roberts on the, 27
physical examination of the, Dr. Roberts on, 85, 191, 245, 349, 519
abnormal physical conditions of the, 629
surgery of the, the elastic ligature in, 478
Abdominal (intra) pressure, measurement of, 254
Aberdeen University, pass-list of the, 512
Abrath, Dr. and McMann, charge of conspiracy against, 120
Mr. Brudenell Carter on the, 146
Abscess, acute, alcoholic injections in, Prof. Gosselin's method of, 311
Académie des Sciences, prizes and prize subjects of the, 183
Accidents, fatal, in various occupations, Mr. Whittall on the rate of, 39
Acne keloid, Mr. Baker's case of, 456
Acne rosacea, scarification in, Mr. Morris on, 539
Aconite and aconitia, poisoning by, observations on, 35
vide Lamson
in India, Drs. Chevers and Palmer on, 63
yellow, poisoning by, case of, 181
Actinomycosis hominis, Dr. Ponfick on, as an infective disease, 640
Addison's disease, Dr. McCall Anderson on, 57
pathology of, Dr. Goodhart on the, 151
supra-renal capsules in, discussion on the, 185
dissection of nerves and ganglia in, 537
case of, 537
in a girl, 231
Advertisers, indecent, sharp dealing with, 426
Advertising medical books, action of the College of Physicians as to, 587
Æsculap water, 22
Æstheticism, critical observations on, 253
"A Seeker after Truth" on, 296
Ainsworth, Dr. on hypodermic injections, 72
Airy, Dr. on the transport of infection of diphtheria by winds, 364
on the sanitary condition of Denbighshire, 670
Albert, Prof. on laparotomy in rupture of intestine, 99
Albumen, composition of, Dr. Latham on the, 388
Albumen-water as a sick diet, 43
Albuminuria in health and disease, Prof. Senator on, 175, 332
and eclampsia during pregnancy, Dr. Ingerslev on, 229
in relation to phthisis, Dr. C. T. Williams on, 318
Alexander, Dr. ligature of vertebral arteries in epilepsy, 250
treatment of displacements of the uterus, 327
Alexandria, registration return of, 496
Alford, Dr. H. J. on the yew as a poison, 314
Mr. Samuel, death of, 107
Alimentary canal, abnormalities of the, Dr. Norman Moore on, 368
Alkapton in the urine, Dr. Armstrong's case of, 70
Allen, Dr. Robert Francis, death of, 570
Alopecia, Dr. McCall Anderson on, 115
Althaus, Dr. case of cerebro-spinal syphilis, 595
Ambulance, Mr. Dixon on the name, 159
Ambulance Association (the St. John), in relation to the hospitals, 69
Volunteer department, progress of the, 95
hospital and accident service for London, Dr. Howard on the, 111
for the London hospitals, observations on, 119
the proposed horse, for London, 146
committee at Liverpool, report of the, 481
Amputation, influence of antiseptics on the period of, Dr. S. Smith on, 648
utility of plaster splints after, 82
successful case of quadruple, 119
Amyot, Mr. on splintering of bottles, 218
Anæsthetics, mixture of, employed at Vienna, 154
Analyses of Somerset House disputed, 43
Anasarca, nervous, Prof. Potain on, 287
Anchylostoma duodenale, distribution of, 531
non-identity of, with bilharzia, 620
Anderson, Fleet-Surgeon William, death of, 320
Anderson, Dr. McCall, on the Diagnosis of Diseases of the Skin, 1
on the forms of cutaneous eruptions, 1
on the classification of diseases of the skin, 55
on functional affections of the hair, 115
on functional affections of the sebaceous glands, 163
on functional affections of the sudoriparous glands, 219

Anderson, Dr. McCall, on parasitic diseases of the skin, 298, 375, 549, 601
Anderson, Mr. A. R. case of multiple sarcoma, 408
Mr. William Charles, death of, 654
Andrews (St.), University of, pass-list of the, 457
Aneurism, antiseptic ligatures in, Dr. Cameron on, 508
axillary, Mr. Marsh's case of, 317
popliteal, specimens of double, 232
vide Aorta
Aneurismal varix of the hand, case of, 594
Angina pectoris, nitrite of amyl in, 209
Antiseptic Surgery, Dr. Watson Cheyne's, review, 480
ligatures in aneurism, Dr. Cameron on, 508
dressings, simplification of, Dr. Little on, 46
Cuxson's, 511
Anus, prolapsus of, Prof. Billroth's radical cure of, 390
fissure of the, iodoform in, 505
Aorta, aneurism of, with paralysis of vocal cords, Dr. Wickham's case of, 538
aneurism of the ascending, Dr. Finlay's case of, 212
Aphthæ of the mouth in infants, formula for, 368
Apothecaries' Society, pass lists of the, 23, 52, 80, 107, 134, 161, 188, 215, 241, 268, 293, 320, 345, 371, 400, 425, 453, 485, 514, 542, 570, 598, 626, 653, 679
Archambault, Prof. on the feeding of infants, 592
Argent, Dr. Samuel, suicide of, 655
Armitstead, Dr. on administration of the Public Health Acts in rural districts, 623
Armstrong, Dr. case with alkaptin in the urine, 70
Army, British, condition of recruits of the, 11
French and German, sanitary state of the, 83
Army Medical Department, changes in the, 475
reform in the French, 623
Army Medical Service, successful candidates for the, 151, 257
recruiting duties of the, 383
vide Indian
Army Hospital Corps, a "service" dispute regarding the, 608
Army Medical School, opening of the session of the, 150
Arsenic, poisoning by, at Sheffield, trial for, 147
Ashby, Dr. on croupous pneumonia in children, 298, 351
Association, the British Medical, *vide* British for the Advancement of Research in Medicine, *vide* Medical Research
Metropolitan Medical Provident, *vide* Metropolitan
Sanitary, *vide* Sanitary
Asthma, formula for, 563
Ataxia in children, cases of, 410

B

Bacteria as a cause of leprosy, Dr. Cornil on, 19
pathogenic, two views of, 526
"Bacillus" and Mr. Milligan on, 566
Baddeley, Mr. Paul Frederick Henry, death of, 161
Baird, Dr. Andrew Wood, death of, 80
Bake-houses, law on, Dr. Lovett on the, 344
Baker, Mr. Marrant, case of acne keloid, 456
Barlow, Dr. and Mr. Godlee, case of extirpation of the kidney, 423
Barnard, Deputy Surgeon-General George, death of, 293
Barnes, Dr. on hernia of the ovary, 159
Barracks, new sanitary, in Sweden, 233
Bartholomew's (St.) Hospital, statistics of, for 1880, 180
Reports, vol. xvii. review, 649
Bate, Dr. on imperfect vaccination, 207
Baumgarten, Prof. on organisms of tubercle, 502
Baxter, Dr. case of chronic hydrocephalus, 239
Beach, Dr. on types of imbecility, 360, 353
Beale, Dr. criticism on Prof. Huxley's views, 533
Beck, Mr. Marcus, case of nephro-lithotomy, 131
case of compound fracture of skull, 173
and Mr. Shattock's Catalogue of University College Museum, notice, 342
Belladonna, administration of, to children, Dr. Jules Simon on, 262
Bendall, Dr. case of acute farcy in man, 186
Benham, Mr. R. F., The Supply of Water, notice, 566
Beri-beri, Prof. Pereira on, 44
Berlin mortality in 1881, 313
Besnier, Dr. E. report on the Paris hospital mortality, 523

Bickford, Dr. case of foreign body in the bronchus, 302
Biggs, Mr. Robert, death of, 486
Bile, Jaundice, and Biliary Diseases, Dr. Legg on, review, 156, 185
Bilharzia hæmaturia, typical case of, 368
non-identity of, with anchylostoma, 620
hæmatobia, specimen of, 76
Dr. Sonsino on, 553
Billroth, Prof. radical cure of prolapsus ani by, 390
on his portrait, 615
Bladder, removal of tumour from, Sir H. Thompson's case of, 482, 610
operations on the, estimate of, 610
Blest, Surgeon Anthony E. death of, 372
Blind, reading to the, in France, 511
Blomfield, Dr. on a case of thoracic cancer, 521
Blood, red corpuscles of the, Dr. Penzold on enumeration of the, 99
Blood-letting, physiological action of, Dr. Genzmer on, 504
Blue, Prof. Pasteur on a new vegetable, 338
Bodington, Dr. George (of Sutton Coldfield), obituary notice of, 241
Books, reviews and notices of, 17, 47, 74, 102, 128, 156, 185, 209, 236, 288, 312, 341, 367, 390, 452, 480, 534, 565, 649
Borax as a germicide, 344
antiseptic use of, Dr. Atkins on, 433
Bottles, splinters of, Mr. Amyot on, 218
Bougie, a fiddle-string as a, 268
Bowditch, Dr. on paracentesis in pleurisy, 419
Boyd, Mr. cases of rupture of the œsophagus, 537
Bozeman, Dr. removal of a cyst from the pancreas, 150
Brain, cancer originating in the membranes of the, specimen of, 455
a large, 672
calcareous tumour of the, specimen of, 455
meningeal tuberculosis of the convexity of the, Dr. Mickle on, 377
asymmetry of the, Mr. Gould's specimen of, 538
Electro-Therapeutics of the, Dr. Löwenfeld on the, review, 237, 314
Braithwaite, Dr. case of unilateral oophorectomy, 416, 454
Bramley, Mr. Lawrence, death of, 425
Bramwell, Dr. John Byrom, death of, 486
"Branding case," the, 96
Braun, Prof. Carl, on vomiting in pregnancy, 386
Breach, Mr. John, death of, 24
Breast, supernumerary, Dr. Notta on a, 311
abscess of the, Mr. Robson on antiseptic treatment of, 277
removal of benign tumours from the, Dr. Gaillard Thomas on, 593
operation for cancer of the, Dr. Gross on, 389
abscess of, with needlessly alarming symptoms, 81
Breasts, excessive development of, in early pregnancy, 15
Brière de Boismont, Dr. obituary notice of, 15
Brighton Health Congress, report on the, 618
Bright's disease—what is it? 69
German views of, 639
British Medical Association, meeting of Dublin branch, 126
Bronchi, fibrinous, cast of the, specimen of, 315
Bronchus, foreign body in the right, Dr. Bickford's case of, 302
Brotherton, Mr. William Henry, death of, 426
Brown, Dr. John (of Edinburgh), obituary notice of, 625
Brown, Mr. Langley, on retroversion and anteversion of the uterus, 15
Browning, Dr. on direct vaccination from the calf, 96, 197, 214
Brushfield, Dr. on restraint of the insane, 664
Bryant, Mr. case of incision of a stricture of the colon, 398
Bubo, treatment of, by carbolic acid, 563
Budd, Dr. George, obituary notice of, 308, 345
Bulkley, Dr., Eczema and its Management, review, 391
Burton, Mr. J. E. mortality of lying-in hospitals, 393
Bussy, Prof. (of Paris), obituary notice of, 181
Butler, Dr. Frederick John (of Winchester), obituary notice of, 315
Butlin, Mr. case of renal lithotomy, 132
Butter, Mr. B. on Dr. Harley's spelling reform, 109

C

- Cachexia, osteal or periosteal, Dr. Gee on, 649
 Caesarian operation, statistics of, Dr. Harris on the, 620
 section with Porro's operation, Dr. Petit on, 358
 Calculus, renal, Dr. S. Coupland's clinical lecture on, 165
 disintegration of a, specimen of, 622
 Calmettes, Dr. on the ophthalmoscope in diseases of the ear, 208
 Cambridge University pass-list, 668
 Cameron, Dr. on antiseptic ligatures in aneurism, 508
 Campbell, Dr. George William, death of, 626
 Cancer, changing views on the pathology of, 37
 prize essays on the cure of, terms of Dr. Warren's, 131
 vide Brain, Breast, Chimney-sweep's, Lungs, Oesophagus, Prostate, Rectum, Sigmoid flexure, Thoracic, Uterus
 Canities, Dr. Anderson on, 116
 Carlisle, sanitary condition of, in 1880, 339
 Carpenter, Dr. A. on the infective powers of scarlatina, 265
 Dr. W. B. on efficacy of vaccination, 154, 177
 Carrington, Dr. cases of hour-glass contraction of the stomach, 106
 Carter, Mr. Brudenell, on the case of McMann, 140
 Caruncle of female urethra, Prof. Goodell on, 340
 Castor oil, Allen and Hanburys' insipid, 22
 mode of administering, 139
 Cavendish, Lord F. and Mr. Burke, the assassination of, 505
 Cemeteries, question of innocuity of, 405
 Cerebellum, diseases of, Dr. Dreschfeld's cases of, 7, 34
 cyst of the, Dr. Sharkey's case of, 105
 Cerebro-spinal fluid, discharge of the, Mr. Holmes on, 507
 Champneys, Dr. on mediastinal emphysema in relation to tracheotomy, 290
 Chapman, Surgeon-Major W. S. death of, 570
 Charbon, preventive inoculation in, Prof. Pasteur's experiments on, 124
 Dr. Duane on the theory of, 130
 Chest, Royal Hospital for Diseases of the, cases treated at the, 356
 Chevers, Dr. Norman, on aconite-poisoning in India, 63
 Dr. Forbes McBean, death of, 216
 Cheyne, Dr. Watson, Antiseptic Surgery, review, 480
 Children, feeding of young, Prof. Archambault on, 592
 infusion of malt as food for, 652
 Children, East London Hospital for, cases treated at the, 61, 90, 144, 252
 Infirmary for, at Liverpool, cases treated at the, 410
 Children, *vide* Aphthæ, Ataxia, Belladonna, Cirrhosis, Convulsions, Development (defective), Empyema, Hernia, Meningitis, Ophthalmia, Pneumonia, Sacrum, Stillborn, Stone, Tetanus, Urine (incontinence of), Viability
 Chimney-sweep's cancer, Mr. Lawson's case of, 317
 China, anomalous fever in, Dr. Manson on, 574
 Chinese, immunity of, from disease, 544
 Chisolm, Dr. on treatment of diseases of the eye, 532
 Chloroform, impurities and administration of, discussion on, 155
 rules for administering, 506
 death from, case of, 481
 Chloroform-water, Prof. Lasègue on, 479
 Cholesterine in a case of hæmorrhagic pleurisy, 652
 Chordee, bromide injections in, 484
 Christie, Mr., New Commercial Plants and Drugs, notice, 393
 Christison, Sir Robert, obituary notice of, 181
 "Christophil," Great David's Greater Son, review, 184, 211
 Churton, Dr. on a case of hæmorrhagic pleurisy, 652
 Chyluria, filarial hæmato-, Dr. S. Mackenzie's case of, 622
 Dr. Sonsino on, 494, 522, 553
 Cinchona, cultivation of, in India, Surgeon-General Irvine on, 276
 Cirrhosis of the liver and lung in children, specimens of, 19
 Clapham, Dr. John, death of, 162
 Clavicle, fracture of, silver-wire suture in, 183
 Clinical Society, annual meeting of the, 68
 reports of meetings of the, 78, 131, 211, 264, 317, 394, 422, 508, 594, 650
 "sparkling novelties" at the, 303
 report of the, on hyperpyrexia in acute rheumatism, 582, 591
 Clinical teaching, Prof. Thiry on, 16
 Coates, Dr. on fluoric acid in enlarged spleen, 483
 Cobbold, Dr. on filariæ in relation to epidemics, 49
 Cod-liver oil, formation of emulsions of, 283

- Coffee as a disinfectant, 269
 Coffin, Mr. on gutta-percha for taking impressions, 319
 Coleridge, Lord, objections of, to vivisection, criticised, 145
 Collapse, hypodermic injections of whisky in, 72
 Collier, Mr. John, death of, 134
 Colon, stricture of, incision of, Mr. Bryant's case of, 398
 Colour-vision, perversion of, Mr. Kesteven's case of, 131
 Comedones, Dr. McCall Anderson on, 163
 Comrie, Staff-Surgeon Peter, death of, 542
 Conjunctiva, inflamed, tannin in, 173
 Connor, Dr. on hot water in diseases of eye, 73
 Convulsions, sudden, in a child, Dr. Donkin's case of, 252
 Cooper, Dr. William, death of, 162
 Cormack, Sir John Rose, obituary notice of, 532, 624
 Cornil, Dr. on bacteria as a cause of leprosy, 19
 Corpus luteum, Dr. Popow on, 567
 Couchman, Mr. Robert, death of, 242
 Coupland, Dr. Sidney, on renal calculus, 165
 cases of malignant endocarditis, 198, 278, 329, 438
 on a case of hydronephrosis, 661
 Cousins, Dr. Ward, on a convertible stethoscope, 4
 Cowan, Dr. Alexander Oswald, death of, 183
 Cox, Mr. Albert George, death of, 598
 Creighton, Dr. on tumour from skin-glands of a dog, 77
 Cremation, conference on, at Milan, 339
 of dissected bodies, proposed, 627
 Crocker, Dr. on a case of prurigo of Hebra, 650
 Croft, Mr. Robert Charles, death of, 242
 Cronin, Dr. Edmund, death of, 134
 Crowe, Mr. John Wainright, death of, 654
 Culture of organisms, Dr. Koch on, 470
 Cumberland Infirmary, cases treated at the, 499
 Cumming, Mr. Stuart McDonald, death of, 242
 Cyanide of potassium, poisoning by, specimen after, 621
 Cystotomy, critical review of, 610

D

- Dagnall, Mr. Edward, death of, 134
 Dale, Mr. Ridley, on the case of McMann, 222, 232
 Dr. W. on tubercle and bacteria, 507
 Dalton, Deputy Inspector-General Wm. Russell, death of, 320
 Darwin and his work, appreciation of, 440
 Dashwood, Mr. Jarrett, death of, 24
 Davies, Mr. Henry, death of, 80
 Mr. Sidney, case of tetanus neonatorum, 607
 Davison, Mr. H. A. death of, 134
 Debove, Dr. on artificial feeding in phthisis, 72
 Decaisne, Prof. (of Paris), obituary notice of, 207
 Delattre, Dr. on the phosphates in pregnancy, 387
 Denne, Mr. William, death of, 268
 Denton, Mr. E. B., Handbook of House Sanitation, review, 392
 Desprès, M. on abscess of the breast, 81
 on plaster-splints after amputation, 82
 Development, defective, in children, Dr. Warner's cases of, 61, 90, 144
 Diabetes, congestion and cirrhosis of the liver in, Dr. Lecorché on, 5
 alveolar periostitis of the jaws in, Dr. Magitot on, 33
 clinical observations on, by Dr. A. A. Smith, 506
 insipidus, ergot in, Prof. da Costa on, 296
 Diabetic foods, Blatchley's, 511
 Diphtheria, necessity of isolation in, Mr. Murphy on the, 284
 transport of infection of, by winds, Dr. Airy on, 364
 pilocarpin in, Dr. Lewin on, 67
 Dr. Besnier on prevalence of, in Paris, 533
 in the Petersburg Foundling Hospital, 631
 Diploma, forging a, trial for, 69
 Dispensaries, provident, critical observations on, 8
 Diver, Dr., The Young Doctor's Future, review, 163
 Dixon, Mr. on the term "ambulance," 158
 on "unfermented" wines, 238
 Doctors' bills, query on, 373
 Donkin, Dr. case of sudden convulsion in a child, 252
 Doubleday, Mr. Edward, death of, 679
 Drainage of deep wounds, Dr. Levis on, 569
 Drainage-tube, abuse of the, Dr. Stephen Smith on the, 451
 Dreschfeld, Dr. cases of cerebellar disease, 7, 34
 Dress, female fashionable, Mr. Treves' views on, 227, 230
 Dropper, a simple, 662
 Duane, Dr. preventive inoculation in infectious disease, 130
 Dublin Sanitary Association, report of the, 100
 Dublin University, pass-list of the, 215, 241, 513
 Duchek, Hofrath Prof. Adalbert (of Vienna), obituary notice of, 398
 Dudgeon, Dr. on the resolutions of the College of Physicians, 47

- Dujardin-Beaumetz, Dr. on artificial feeding in phthisis, 72
 on hydrophobia in Paris, 216
 case of death from chloroform, 481
 Duke, Mr. Thomas Oliver, death of, 654
 Duncan, Dr. Matthews, address at the Obstetrical Society, 137
 Duplex, Dr. George, death of, 188
 Dysmenorrhœa, natural history of, Dr. Williams on the, 567, 669, 677
 dilatation of the cervix in, Dr. Godson on, 48
 discussion on, 160
 cases of, with division of the vaginal portion, Dr. Herman on, 636

E

- Ear, disease of the, the ophthalmoscope in, Dr. Calmettes on, 208
 scented iodoform in, 311
 removal of foreign bodies from the, Prof. St. John Roosa on, 101
 Mr. Lowdell on, 211
 removal of osseous tumours from the auditory canal of the, Mr. Field on, 104
 expulsion of insects from the, 289
 Eczema and its Management, Dr. Bulkley on, review, 391
 of the face, ignipuncture in, Dr. Chalot on, 110
 Edinburgh University, pass-lists of the, 512
 Edis, Dr., Diseases of Women, review, 17
 Ehrlich, Dr. on detection of tubercular bacilli, 559
 Eklund, Dr. on new barracks at Stockholm, 233
 Electric light, effects of, on the eye, Prof. Javal on, 86
 as observed at the Crystal Palace, 563
 Elephant, gestation of the, 260
 Elkund, Dr. on the etiology of scarlatina, 97
 Embolism of pulmonary artery, specimen of, 537
 Emmet's operation, discussion on, at the Obstetrical Society, 304, 316
 Emphysema, mediastinal, in relation to tracheotomy, Dr. Champneys on, 290
 Empyema, thoracentesis in, in a child, Mr. Parker on, 508
 irrigation in, Dr. Hensley on, 649
 Enchondroma, multiple, case of, 291
 Encyclopædia (The International) of Surgery, review, 367
 Endocarditis, suppurative, Dr. Goodhart's specimens of, 20
 ulcerative, Dr. A. Carter's case of, 294
 remarkable specimen of, 539
 malignant, Dr. Sidney Coupland's cases of, 198, 278, 323, 438
 England and Wales, registration returns, *vide* Registration
 Ephelis, Dr. McCall Anderson on, 57
 Ephidrosis, Dr. McCall Anderson on, 219
 Epidemic diseases, management of, at Glasgow, Dr. Russell on, 484
 Epidemiological Society, reports of meetings of the, 49, 484
 Epilepsy, ligature of vertebral arteries in, Dr. Alexander on, 250
 "Medical Digest" on, 314
 Epileptic fits, suspended cerebral function after, Dr. Russell's cases of, 3, 59
 Epistaxis, Dr. Lefferts on a local origin of, 450
 Epithelioma, application of chlorate of potash to, 496
 ulcer treated by scraping, Mr. Holmes' case of, 594
 Epulis, recurring, Mr. Gaddes' case of, 483
 Ergot, hypodermic injection of, Dr. Ainsworth on, 72
 Erythema iris, Mr. Squire's case of, 212
 Eskridge, Dr. on the pre-physical sign stage of phthisis, 365
 Ether, inhalation of, case of death from, 380
 Eustachian tube, digital examination of the, Dr. Wynn on, 156
 Ewart, Deputy Surgeon-General Dr. climate of Indian hill-sanatoria, 58
 Dr. William, Gulstonian Lectures of, on Pulmonary Cavities, 271, 323, 405, 434
 Examinations in elementary anatomy, the proposed, 662
 Experiments on a hospital patient, the alleged, 67
 Extra-uterine foetation, Mr. Thornton's case of, 454
 Eye, aphorisms on treatment of diseases of the, 532
 congenital defects of the, cases of, 144
 removal of foreign bodies from the, Prof. St. John Roosa on, 45
 diseases and injuries of the, Dr. Wolfe on, 392
 diseases of the, hot water in, Dr. Connor on, 73
 Dr. Neale on, 109
 Eyeball tension, Mr. Watson's case of, 265

F

- Fæces, examination of the, Dr. Roberts on, 350
 "Family Doctor," attributes of the so-called, Dr. Fowler on the, 169, 195, 247

- Farcy, acute, in man, Dr. Bendall's case of, 186
specimens from a case of, Mr. Boyd's, 421
Fasson, Surgeon-General Dr. Stanhope Hunter, obituary notice of, 286, 315
Fauces, scald of the, specimen of, 187
Favus, Dr. McCall Anderson on, 299
the parasite of, 601
Fayrer, Sir Joseph, Croonian Lectures on the Climate and Fevers of India, 403, 429, 461, 489, 517, 545, 573
Feeding of young children, Prof. Archambault on, 592
Fellowes, Mr. H. T. Abdy Butler, death of, 216
Felsenreich, Dr. on drainage in rupture of uterus, 14
Femoral artery, double, case of, 357
Fenwick, Dr. B. specimen of tricuspid incompetency, 186
specimen of intra-thoracic tumour, 456
Dr. S. on variations of saliva in disease, 397
on a case of primary cancer of the lungs, 415
Fever, intermittent, iodine in, 139
typhoid, *vide* Typhoid
Fevers, Continued, Dr. James Wilson's treatise on, review, 102
in India, *vide* India
Fibromata of the skin, multiple, Prof. Recklinghausen on, 382
Filaria sanguinis hominis, Dr. Myers on the, 9
in South Formosa, Dr. Myers on, 49
in relation to epidemics, Dr. Cobbold on, 49
in Egypt, Dr. Sonsino on, 494, 522, 553
Filarial hæmato-chyluria, Dr. Stephen Mackenzie on a case of, 622
Filho, Dr. on rattle-snake poison, 154
Finch, Mr. Alfred, death of, 426
Finlay, Dr. case of aneurism of the ascending aorta, 212
on a case of pleurisy with paracentesis, 357
Fletcher, Mr. John Shepherd, death of, 162
Flint, Prof. on the salicylic acid treatment of rheumatism, 234
on the antipyretic treatment of typhoid fever, 261
Foods, American tinned, ill effects of, 660
Fœtus, dropsical, obstructing labour, Mr. Hussey's case of, 18
Forrest, Mr. John King (of Dublin), obituary notice of, 540
Fowler, Dr. on the attributes of the so-called "family doctor," 169, 195, 247
Fox, Dr. G. H. on treatment of syphilis, 564
Fractures, *vide* Clavicle, Ribs, Skull, Spine
France, decline of population in, Dr. Richet on, 457
vide Army
Francis, Dr. on the value and use of opium, 87
Freeman, Mr. Thomas Anthony, death of, 542
Fright, remarkable deaths from, 660
Fulham Hospital of the Metropolitan Asylums Board, description of, 415
Funk, Dr. on cancer of the uterus and vagina, 331
on the abuse of pessaries and uterine sound, 340
- G**
- Gaddes, Mr. case of recurrent epulis, 483
Gadsby, Mr. John Topham, death of, 183
Galabin, Dr. retention of the menses in a double uterus, 289
Gall-stones, passage of large, case of, 232
Galton, Mr. F. on the physiognomy of phthisis, 286
Gangrene, spontaneous of the skin, case of, 671, Garfield, President, fees of medical attendants of, 232
Garstang, Dr. Walter, death of, 626
Gee, Dr. on osteal or periosteal cachexia, 649
Genu valgum, specimen of the bones in, 104
Genzmer, Dr. on the physiological action of blood-letting, 504
Germany, medical practitioners in, in 1881, 183
Germicide treatment, 583
Giles, Mr. Peter Broome, death of, 188
Gilette, Dr. on nerve-stretching in sciatica, 551
Girdlestone, Mr. surgical uses of kangaroo tendon, 213
Glasgow, management of epidemics at, Dr. Russell on, 484
Glasgow Ophthalmic Institution, cases treated at the, 252
Glisan, Prof., Textbook of Modern Midwifery, review, 341
Godson, Dr. on dilatation of the cervix in dysmenorrhœa, 48
Goître, extirpation of, Prof. Billroth's cases of, Dr. Wölfler on, 121
Gonorrhœa, Dr. Pancoast's formula in, 564
Goodell, Prof. on caruncle of the female urethra, 340
Goodhart, Dr. on the pathology of Addison's disease, 151, 185
and Mr. Bird, case of nephrectomy, 396
Goodwin, Dr. Robert Docksey, death of, 242
Gore, Dr. Henry John, death of, 24
Gosselin, Prof. treatment of abscess by alcohol, 310
Gould, Mr. Pearce, case of spina bifida, 510
case of congenital intestinal obstruction, 510
case of asymmetry of the skeleton and brain, 538
Grancher, Dr. relations of scrofula and tuberculosis, 150
Graves, Mr. Ryves William, death of, 372
Gray, Dr. (of Utica), attempted assassination of, 387
Greatrex, Surgeon-Major Edward, death of, 626
Greenhow, Dr. on treatment of rheumatism by quinine and iodide of potassium, 650
Greenley, Dr. on fasting, 521
Greville, Mr., Student's Handbook of Chemistry, notice, 313
Grewcock, Dr. Charles, death of, 570
Grosch, Dr. amputation at hip-joint under antiseptics, 459
Gross, Dr. on operations in cancer of the breast, 389
Guéniot, Dr. on a generalised vaccine eruption, 549
Guillemard, Dr. Endemic Hæmaturia, review, 368
Gutta-percha for taking impressions, Mr. Coffin on, 319
Guttmann, Dr. on an epidemic of small-pox, 664
Guy's Hospital, cases treated at, 497
case of accidental poisoning at, 40
Gynæcological Society, Transactions of the American, review, 665
- H**
- Hæmaturia, Dr. Guillemard on Endemic, review, 368
Hæmidrosis, Dr. McCall Anderson on, 220
Hæmoglobinuria, paroxysmal, Dr. Saundby on, 224
Hahn, Dr. on extirpation of the uterus, 669
Hair, abnormalities of, Dr. McCall Anderson on, 115
Hale, Dr. Robert James, death of, 626
Halfpenny, prolonged retention of a swallowed, 143
Hall, Dr. de Havilland, case of perichondritis of the larynx, 510
Mr. Winslow, on a case of sponge-grafting, 659
Hallowes, Mr. Price Blackwood, death of, 52
Hampstead Hospital case, observations on the judgment on, 556
Hare-lip, Dr. Whitson on the operation for, 578
Harley, Dr. George, on national spelling reform, 31
Mr. Butter's reply to, 109
Harris, Dr. on the statistics of the Caesarian operation, 620
Harrison, Mr. Reginald, on treatment of prostatic obstruction, 379
Harting, Prof. danger of hypnotic experiments, 313
Harveian Society, reports of meetings of the, 104, 539, 652
Harvey, Dr. Reuben Joshua (of Dublin), obituary notice of, 21
proposed memorial to, 42
Haward, Mr. on splenotomy, 394
Hawkins, Mr. C. on the amalgamation of medical societies, 263
Head, gunshot wound of the, case of, 372
Healy, Mr. Alfred, death of, 679
Health-Congress at Brighton, report on the, 618
Health (Medical Officers of), Society of, reports of meetings of the, 214, 265, 343, 535, 623
Health (Public) Acts, administration of, in rural districts, Dr. Armitstead on, 623
Heart, defective development of the, in children, Dr. Warner's cases of, 61, 90
congenital disease of the, Mr. Hadden's case of, 420
great enlargement of right auricle of the, specimen of, 421
of the frog, action of alkalies on the, Drs. Ringer and Sainsbury on the, 675
vide Endocarditis
Hemiplegia, disorder of movement after, Dr. Ord's case of, 595
Hensley, Dr. on irrigation in empyema, 649
Herman, Dr. on cases of dysmenorrhœa, 636
Hernia, Mr. Rushton Parker's cases of, 118, 173, 226, 380, 524, 555, 581
irreducible, injection of morphia in, 479
femoral, strangulated, cases of, 227, 520
inguinal, strangulated, cases of, 118, 380, 581
associated with hydrocele, case of, 469
with puncture of intestine, case of, 226
in an infant, 350
ligature of the sac in cases of, 556
prophylactic operation for radical cure of, 524
double, treated by Wood's method, 568
umbilical, strangulated, cases of, 173, 555
Herpes zoster affecting the arm, Dr. Handfield Jones on a case of, 468
Hervieux, Dr. on receptivity of virulent disease, 71
Hey, Mr. Edward, death of, 162
Hill, Mr. Berkeley, Syphilis and Local Contagious Disorders, review, 312
Hines, Mr. Charles Henry, death of, 626
Hip, dislocation of the, Mr. Morris on, 214
joint amputation under antiseptics, 459
Hoffman, Mr. George, death of, 372
Hogg, Surgeon Francis E. C. death of, 320
Holmes, Mr. on wounds of the theca vertebralis, 307
case of removal of loose cartilages, 495
case of removal of foreign bodies impacted in the thyroid cartilage, 596
treatment of epitheliomatous ulcer by scraping, 594
Homœopathy, the resolution of the College of Physicians on, Dr. Dudgeon on the, 47
resolution of the New York Medical Society as to, 505
Horse-flesh, consumption of, in Paris, 374
Hospitals, middle-class paying, the Duke of Northumberland on, 208
elections to, the Liverpool resolutions on, 481
making post-mortems in, question of the right of, 587, 614
of Paris, "laicisation" of the, 127
overcrowded state of the, 263
Dr. E. Besnier on the mortality in, 533
of Vienna, in 1880, 275
vide Bartholomew's (St.), Chest, Children, Cumberland, Fulham, Glasgow, Guy's, Hampstead, Liverpool, London, Lying-in, Maine (U.S.), Manchester, Metropolitan Asylums Board, Middlesex, Petersburg (St.), Royal Free, Samaritan, Seamen's, Tottenham, University College
Howard, Dr. B. on a hospital and accident ambulance for London, 111
Huddersfield, sanitary condition of, in 1880, 418
Hueter, Prof. Carl (of Greifswald), obituary notice of, 615
Hughes, Dr. John (of Dublin), obituary notice of, 540
Hussey, Mr. case of a dropsical fœtus obstructing labour, 18
note of, on football accidents, 78
Hutchinson, Dr. J. C., Contributions to Orthopædic Surgery, 312
Hutchinson, Mr. Jonathan, alleged experiments on a hospital patient by, 67
on the nature of sciatica, 83
on a case of lupus erythematosus, 657
Huxley, Prof., Dr. Beale's criticisms on views of, 533
Hydatids of the peritoneum, Mr. Lawson's cases of, 267
Hydriodic acid, Gardner's syrup of, 511
Hydrocephalus, chronic, with meningocele, discussion on, 239
Hydronephrosis, Dr. Sidney Coupland on a case of, 661
Hydrophobia in Paris, Dr. Dujardin-Beaumez on, 216
Hypnotism, danger of experiments in, Prof. Harting on, 313
Hypodermic injections, Dr. Ainsworth on, 72
Hysterical retention of urine in a man, Dr. Russell on, 353
- I**
- Ichthyosis, Dr. McCall Anderson on, 168
generalised, Dr. O'Connor's cases of, 651
Imbecility, types of, Dr. Beach on, 300, 353
India, hill-sanitaria of, Dr. Ewart on the, 58
climate and fevers of, Sir J. Fayrer on, 403, 429, 461, 489, 517, 545, 573
physical characters and races of, 403
prevalence of fevers in, 404
influence of malaria in, 429
intermittent fever in, 461
remittent fever in, 489
ephemeral fever in, 517
ardent or thermic fever in, 518
enteric fever in, 545, 573
Indian Medical Service, proposed amalgamation of the, 44
amended rate of pensions of the, 231
Infectious diseases, filtering the air in, Dr. McLean on, 28
receptivity of acute, Dr. Hervieux on, 71
theory of preventive inoculation in, Dr. Duane on the, 180
compulsory notification of, Dr. A. Carpenter on the, 360
Dr. Seaton on, 384
protest at Nottingham against the, 503
protest at Bootle against the, 613
petition from Liverpool against the, 645
Inflammation, changing views on the pathology of, 37
articles on, by Profs. Stricker and Van Buren, review of, 367
Ingerslev, Dr. on albuminuria and eclampsia in pregnancy, 229
Innominate artery, case of ligature of the, 667
Insane, employment of, Dr. Williams on the, 357
Insanity, plea of, in the case of Maclean, 443
as a ground of divorce, 240
vide Lunatics

Interments of paupers, circular of Local Government Board on the, 592
 Intermittent fever in India, Sir J. Fayrer on, 461
 Intestinal canal, obstruction of, cases of, 76
 from diverticulum of the ileum, case of, 420
 from plum-stones, case of, 582
 congenital, Mr. Gould's case of, 510
 rupture of the, laparotomy in, Prof. Albert on, 99
 Intra-thoracic tumour, Dr. Fenwick's specimen of, 456
 Iodide of potassium, advantage of small doses of, 236
 Iodoform, utility of, in surgery, Dr. Mikulicz on, 19
 critical observations on the use of, 38
 Dr. Neale on an erratum respecting, 53
 caution in the use of, Dr. Sands on, 652
 in orchitis, 54
 poisoning by, Prof. König's circular on, 71
 Irish Medical Association, annual meeting of the, 646
 Iron, muriated tincture of, in capsules, 44
 German preparations of, 238
 Irvine, Surgeon-General, on cultivation of cinchona in India, 276
 Dr. Hans (of Dublin), obituary notice of, 293
 Italy, census of, in 1881, 646

J

Jacobi, Dr. on follicular tonsillitis and diphtheria, 216
 Jameson, Deputy Surgeon-General Williams, death of, 496
 Jastreban, Dr. on the ganglion of the cervix uteri, 43
 Javal, Prof. effects of the electric light on the eye, 86
 Jeffery, Dr. John Dacie, death of, 167
 Jenkins, Mr. case of a swallowed halfpenny, 143
 Jenks, Dr. George Samuel, death of, 162
 Jones, Mr. Alfred, death of, 372
 Jousset de Bellesme, Dr. on Prof. Pasteur's microbes, 451
 Johnson, Dr. George, case of perforative pneumothorax, 264
 Johnston, Surgeon-General, on the germicide treatment of leprosy, 616
 Surgeon-Major Joseph Salkeld, death of, 623
 Joints, local temperature of the, M. Nicaise on, 570
 Jones, Dr. Handfield, on a case of herpes zoster, 468
 on opium in rheumatic arthritis of the knee, 630
 Mr. Lewis Herbert, death of, 626
 Jopp, Deputy Inspector-General Dr. James, death of, 162

K

Kane, Dr., Opium-Smoking in America and China, review, 390
 Kangaroo tendon, surgical uses of, Mr. Girdlestone on, 213
 Kasprzik, Dr. on the elastic ligature in abdominal surgery, 478
 Keetley, Mr., Index of Surgery, review, 289
 Kensington, vital statistics of, in 1881, 207
 Keratitis, malarial, Dr. Miller on, 292
 Kerr, Dr. Norman, note on unfermented wines, 263
 Kidney, surgery of the, review of the progress of, 176
 Kidneys, physical examination of the, Dr. Roberts on, 520
 partial removal of, in pyelitis, Mr. Marsh's case of, 422
 operations on the, *vide* Nephrectomy and Nephro-lithotomy
 extirpation of, for calculous pyelitis, Dr. Barlow and Mr. Godlee's case of, 423
 injury of the, Mr. May's case of, 294
 floating, Dr. Landau on, 202
 myosarcoma of the, specimen of, 420
 calculus of the, *vide* Calculus
 vide Hydronephrosis
 King, Staff-Surgeon Richard, death of, 598
 Kirk, Dr. James Balfour, death of, 188
 Klikowitsch, Dr. on laughing-gas in labour, 13
 Knee-joint, excision of, Dr. Stokes's cases of, 386
 removal of loose cartilages from the, Mr. Holmes' case of, 494
 rheumatic arthritis of the, Dr. H. Jones on opium in, 630
 Koch, Dr. R. on the bacillus of tubercle, 411
 critical estimate of the discovery by, 441, 526
 demonstration of the bacillus of, 499
 on "pure culture" of organisms, 470
 Kynsey, Dr. on the Parangi disease, 29

L

Labour, laughing-gas as an anæsthetic during, 13
 obstruction of, by a dropsical fetus, 18

Lamson, poisoning with aconitine by, 64, 281
 411, 443
 Landau, Dr. on floating kidney, 202
 Langenbuch, Dr. on silver-wire suture in fracture of the clavicle, 183
 Langlebert, Dr. on vaseline emulsions, 15
 Lannelongue, Prof. on the absorption of sequestra, 649
 Laryngeal growths, removal of, Dr. Semon on, 596
 Larynx, perichondritis of, Dr. Hall's case of, 510
 Lasègue, Prof. on chloroform-water, 479
 Latham, Dr. on the composition of albumen and leucine, 388
 Lawrence, Mr. Cripps, on röheln, 540
 Lawson, Mr. case of chimney-sweep's cancer, 317
 Lead-colic, relief of pain in, Dr. Geneuil on, 296
 Lead-poisoning, hereditary form of, Dr. Rennert on, 417
 Lead, poisoning by the dichromate of, Dr. Smith's cases of, 6
 Lecorché, Dr. on congestion of the liver in diabetes, 5
 Lediard, Dr. phthisis without sputa, 328
 case of bubonocoele with hydrocele, 469
 Lefferts, Dr. on a local origin of epistaxis, 450
 Legg, Dr., Bile, Jaundice, and Biliary Diseases, review, 156, 184
 Leopold, Prof. experiments on the production of abdominal pregnancy, 41
 Leprosy, bacteria as a cause of, Dr. Cornil on, 19
 germicide treatment of, Surgeon-General Johnston on the, 616
 in the Sandwich Islands, Dr. Vineberg on, 630
 Leucine, composition and changes of, Dr. Latham on the, 388
 Leucorrhœa of pregnancy, suppositories for, 216
 Levis, Dr. on the treatment of varicocele, 45
 on drainage of deep wounds, 569
 Lewandowsky, Dr. cases of retro-pharyngeal abscess after scarlatina, 287
 Leyden, Prof. on the pathology of Bright's disease, 639
 Ligatures, elastic, in abdominal surgery, Dr. Kasprzik on, 478
 antiseptic, in aneurisms, Mr. Cameron on, 508
 Lighton, Mr. Henry Alfred Hamilton, death of, 486
 Lincoln, sanitary condition of, in 1881, 646
 Litholapaxy, Prof. Van Buren on, 419
 Little, Prof. on simplified antiseptic dressings, 46
 Mr. Charles Edward, death of, 626
 Liver, physical examination of the, Dr. Roberts on, 519
 abscess of the, Dr. Furnell on, 131
 traumatic, on the surface of the, 369
 cirrhosis of, in children, specimen of, 19
 case of sudden dislocation of the, 35
 simple cysts of the, Dr. Sharkey's specimens of, 105
 Liverpool, letters from, 130, 343, 481
 Royal Infirmary, cases treated at the, 118, 173, 226, 380, 524, 554
 Lying-in Hospital, question of conversion of the, 334
 Local Government Board, Report of Medical Officer of the, for 1880, review, 280, 359
 Lockwood, Mr. case of ranula, 329
 London, vital statistics of, 25, 53, 81, 103, 135, 162, 189, 217, 243, 269, 294, 321, 347, 373, 400, 427, 459, 487, 515, 543, 571, 599, 627, 655, 680
 water-supply of, *vide* Water-supply
 port of, report on the, 98, 616
 London Hospital, cases treated at the, 637
 London University, pass-lists of the, 23, 215
 meeting of convocation of the, 62
 the matriculation examination of the, 448
 Longmore, Prof. note on the Farmer and Sealey fund, 18
 Lovett, Mr. on the law on bake-houses, 344
 Lowdell, Mr. on removal of foreign bodies from the ear, 211
 Löwenfeld, Dr., Researches on Electro-Therapeutics of Brain, review, 237
 reply of, to criticism, 314
 Lucas, Mr. Clement, case of compound fracture of the skull, 497
 Lunacy laws, Mr. Leighton's motion on, in Parliament, 450
 observations on, 472
 Lunatics in England and Wales, in 1881, 205
 criminal, detention of, Dr. Voisin on the, 436
 treatment of, by restraint, Dr. Brushfield on, 664
 vide Insanity
 Lungs, partial resection of, Dr. Schmid's experiments on, 228
 cavities of the, Dr. Ewart's Gulstonian Lectures on, 271, 323, 405, 434
 primary cancer of, Dr. Fenwick's case of, 415
 Lupus psoriasis, Dr. S. Mackenzie's case of, 651
 erythematous, Mr. Hutchinson on a case of, 657
 Lycett, Dr. John, death of, 426
 Lying-in *versus* gynæcological wards, 334
 hospitals, Mr. Barton on, 393
 Lymphocoele and lymphuria in Egypt, Dr. Sonsino on, 495, 522, 553

Lymphoma, malignant, Dr. Hobson's specimen of, 455
 Lympho-sarcoma, thoracic, Dr. Blomfield on a case of, 521

M

McClintock, Dr. Alfred Henry, obituary notice of, by Dr. Duncan, 138
 McCraith, Dr. on measurement of paradoxical temperatures, 78
 on his experience in vaccination, 172
 Macdonald, Dr., Naval Hygiene, review, 210
 Macilwain, Mr. George, death of, 107
 Mackenzie, Dr. S. on a case of filarial hæmatocyturia, 622
 case of lupus psoriasis, 651
 Mackintosh, Mr. Andrew William, death of, 293
 MacLagan, Dr., Nature and Pathology of Rheumatism, review, 74, 128
 Maclean, Roderick, plea of insanity in the case of, 443
 McMann, alleged railway fraud of, 120
 Mr. Brudenell Carter on the case of, 140
 Mr. Dale on the case of, 222, 232
 Madras, vital statistics of, in 1880, 133
 Magitot, Dr. on alveolar periostitis in diabetes, 33
 Magnesia, Corry's recarbonated fluid, 511
 Mahomed, Dr. on a case of myxœdema, 318
 Maidstone, health of, in 1880, 338
 Makuna, Mr. on the pre-eruptive stage of small-pox, 495, 551, 579, 606, 632
 on the ectrotic treatment of small-pox, 568
 Malt, infusion of, as infants' food, 652
 Malaria, influence of, on fevers in India, Sir J. Fayrer on, 429
 fevers from, treatment of, Sir J. Fayrer on, 491
 acute, iodine against, 342
 Malarial cachexia, 490
 Malignant pustule, Dr. Davies-Colley's cases of, 676
 Malt-jelly, Hoff's extract of, 161
 Malt-pepsin, Burgoyne and Co.'s, 511
 Manchester Royal Infirmary, cases treated at the, 7, 34
 Manson, Dr. on anomalous fever in China, 574
 Marchand, Prof. *Ueber den Wechsel der Anschauungen in der Pathologie*, critical observations on, 36
 Marine Hospital Medical Service, U.S. 233
 Marreco, Prof. Algernon Freire (of Durham), obituary notice of, 371
 Marsh, Mr. case of axillary aneurism, 317
 case of pyelitis, 422
 Marston, Brigade-Surgeon, on enteric fever in India, 575
 Martin, Brigade-Surgeon Curtis, death of, 400
 Marylebone (St.) Parish, sanitary chronicles of, 13
 Maternité, the Paris, rebuilding of, 231
 Mawley, Mr., Weather of London in 1881, notice, 535
 Maxillary nerve, mode of excising the, 242
 Measles, epidemic of, in Dublin, 97
 epidemic of, at Lyons, 521
 return of deaths from, in Paris, 535
 Medical and Chirurgical Society (the Royal), reports of meetings of the, 77, 159, 213, 290, 318, 397, 482, 507, 568, 596, 675
 annual meeting of the, 234
 address of the President of the, 259
 position of the, observations on the, 497
 Medical Congress at Wiesbaden, meeting of the, 530
 Medical Research, formation of a Society for the Advancement of, 305, 339, 447, 482
 Medical societies, *vide* Societies
 Medical students, German and Swiss, in 1881-82, 240
 Medical women in Russia, 514
 in the United States, 208
 resolution at Harvard University concerning, 540
 position of, in America, 625
 report on the London School for, 665
 Medulla oblongata, hyperæmia of, specimens of, 238
 Meningitis, separation of cranial bones in, Prof. Parrot on, 286
 cerebro-spinal, in an infant, 496
 Menses, retention of, in a double uterus, Dr. Galabin on, 289
 Menstruation, vicarious, examples of, Dr. McCAnderson on, 220
 Mercury, salivation from, prevention of, 181
 ammonio-chloride of, poisoning by, case of, 302
 Metropolitan Asylums Board, arrangements of the, about small-pox, 40, 43, 307, 362
 difficulties of the, 95, 96, 149, 205
 report on the Darenth Asylum of the, 259, 641
 report on the Deptford Hospital of the, 363
 report on the Homerton Hospital of the, 385
 description of the Fulham Hospital of the, 415
 meetings of the, 476, 561
 Metropolitan Board of Works, annual report of, 647

Metropolitan Medical Provident Association, meetings of the, 473, 642
 Metrorrhagia, secondary puerperal, Dr. Parvin on, 565
 Mickle, Dr. localisation of visual centres of the cortex, 89
 erratum, 135
 on meningeal tuberculosis of the cerebral convexity, 377
 Middlesex Hospital, reports of cases treated at the, 198, 278, 329, 438, 660
 Midland Medical Society, reports of meetings of the, 15, 124, 267, 294
 Midwifery, Prof. Glisan's Textbook of Modern, review, 342
 Mikulicz, Dr. on iodoform in surgery, 19
 Milk analysis, Dr. Vieth's method of, 498
 Millican, Mr. on the yew as poisonous, 314
 Milligan, Mr. on the parasitic origin of disease, 566
 Milroy, Dr. on Dr. Kynsey's report on the Parangi disease, 29
 Mitchell, Dr. Weir, Fat and Blood, notice, 342
 on neurectomy in facial neuralgia, 619
 Moffitt, Surgeon-Major Andrew, death of, 188
 Monod and Terrillon, Profs. on contusion of the testis, 73
 Moore, Mr. Alfred W. death of, 346
 Dr. Norman, on abnormalities of alimentary canal, 368
 Morgan, Mr. on the etiology of rickets, 658
 Morphia, hypodermic injections of, Dr. Ainsworth on, 72
 toleration of, case of, 277
 Morris, Mr. H. cases of dislocation of the hip, 214
 Mr. Malcolm, on scarification in acne, 539
 Muir, Sir William, retirement of, as Director-General of the Army Medical Department, 475
 Mule, a fertile, 143
 Murrell, Dr., What to Do in a Case of Poisoning, notice, 210
 Myers, Dr. on filaria sanguinis hominis, 9
 on opium-smoking at Formosa, 672
 Myxoedema, discussion on, at the Clinical Society, 78
 Dr. Mahomed on a case of, 318
 Myxoma, recurrent, cases of, 421

N

Naval Hygiene, Dr. Macdonald's, review, 210
 Navy, report on health of, in 1880, 94
 Neale, Dr. on application of hot water to the eye, 109
 Mr. Charles, death of, 293
 Nephrectomy by abdominal section, Mr. K. Thornton's case of, 285
 Dr. Goodhart and Mr. Bird's case of, 396
 Mr. K. Thornton on, 466
 Nephro-lithotomy, cases of, by Messrs. Beck, Butlin, Dr. Whipple, and Mr. Haward, 131
 Nephrotomy, Mr. K. Thornton on, 466
 vide Kidney
 Nerve-stretching in sciatica, Dr. Gillette on, 551
 inutility of, in tabes, 194
 Nervous System, Diseases of the, Dr. Ross's treatise on, review, 209
 Neumann, Prof. case of spontaneous gangrene of the skin, 671
 Neuralgia, croton-chloral hydrate in, Dr. Fox on, 331
 facial, neurectomy in, Dr. Weir Mitchell on, 619
 Nicaise, Dr. on local temperature of joints, 570
 Nice, hospital for visitors at, Dr. West on a, 604
 Nicholl, Dr. David Charles, death of, 134
 Nicholson, Dr., Is the yew poisonous? 263
 Nielly, Prof. on a new parasitic skin-disease, 450
 Night medical service, question of, in London, 178
 in New York, results of, 259
 in Paris, 91, 419
 Nitrite of amyl, timidity in the use of, 209
 North, Dr. John Cunningham, death of, 542
 North London Hospital, the proposed new, 482
 Nose, polypus of the, use of tannin in, 33
 Nunn, Mr. Roger Sturley (of Colchester), obituary notice of, 103

O

Obituary Notices :—
 Bodington, Dr. George (of Sutton Coldfield), 241
 Brierre de Boismont, Dr. 15
 Brown, Dr. John (of Edinburgh), 625
 Budd, Dr. George, 308, 345
 Bussy, Prof. (of Paris), 181
 Butler, Dr. Frederick John (of Winchester), 315
 Christison, Sir Robert, 181
 Cormack, Sir John Rose, 532, 624
 Decaisne, Prof. (of Paris), 207
 Duchek, Hofrath Prof. Adalbert (of Vienna), 328
 Fasson, Surgeon-General Dr. Stanhope Hunter, 286, 315
 Forrest, Mr. John King (of Dublin), 540
 Hueter, Prof. Carl (of Griefswald), 615

Obituary Notices :—
 Hughes, Dr. John (of Dublin), 540
 Irvine, Dr. Hans (of Dublin), 293
 McClintock, Dr. Alfred Henry (of Dublin), 138
 Marreco, Prof. Algernon Freire (of Durham), 371
 Nunn, Mr. Roger Sturley (of Colchester), 103
 Oldham, Mr. James (of Brighton), 22
 Pancoast, Prof. Joseph (of Philadelphia), 393
 Peacock, Dr. Thomas Beville, 615, 678
 Pirogoff, Prof. Nicholas, 51
 Radford, Dr. Thomas (of Manchester), 238
 Schwann, Prof. Theodore, 97, 158
 Simon, Prof. Oscar (of Breslau), 398
 Sinclair, Sir Edward Burrowes (of Dublin), 364, 370
 South, Mr. John Flint, 40
 Spence, Prof. James (of Edinburgh), 653
 Spiegelberg, Prof. Otto (of Strasburg), 138
 Williams, Dr. Joseph, 371
 O'Brien, Surgeon-General, death of, 372
 Obstetrical Society, reports of meetings of the, 48, 159, 289, 304, 316, 454, 567, 677
 Dr. Matthews Duncan's address at the, 137
 O'Connor, Dr. on cases of generalised ichthyosis, 651
 Odontological Society, report of meetings of the, 240, 319, 483, 596
 Oedema, rheumatic, Prof. Potain on, 189
 Oesophagus, primary cancer of the, specimen of, 285
 rupture of the, Mr. Boyd's cases of, 537
 Oldham, Mr. James (of Brighton), obituary notice of, 22
 Operations, statistics of, at the Neckar Hospital, 128
 importance of antiseptics as regards the periods for, Dr. S. Smith on, 648
 Ophthalmia neonatorum, treatment of, Prof. Reynolds on the, 235
 iodoform in, Dr. Lange on, 340
 prevention of, Dr. Cr  d   on, 481
 Ophthalmological Society, discussion on sclerotomy, 641
 Ophthalmoscope, utility of, in ear-disease, 208
 Opium in rheumatic arthritis, Dr. H. Jones on, 630
 value and dietetic use of, Dr. Francis on the, 87
 smoking of, in America and China, Dr. Kane on, 390
 at Formosa, Dr. Myers on, 672
 Orange, Dr. assault on, by a lunatic, 644
 Orchitis, iodoform in, 54
 Ord, Dr. disorder of movement following hemiplegia, 595
 Organisms, "pure culture" of, Dr. Koch on, 470
 Osteitis deformans, Sir J. Paget's cases of, 676
 Ovarian cell, Dr. Edwards on the non-pathognomonic character of, 630
 Ovariectomy, threatened suppression of urine in, Mr. K. Thornton on, 211
 death after, due to tapping, Mr. Tait on, 267
 Prof. Schroeder's three hundred cases of, 477
 the report of the Samaritan Hospital in relation to, 525
 Dr. Savage's comments on, 621
 Ovary, hernia of the, Dr. Barnes on, 159
 removal of the, Dr. Braithwaite's cases of, 454
 observations on, 416
 papillary cysts of the, Mr. Doran's specimens of, 456
 Owen, Mr. Thomas Edward, death of, 134
 Oxalic acid poisoning, state of stomach after, 621
 Oxford, the Waynflete Professorship of Physiology at, 638
 Ozone as an anæsthetic, 338

P

Paget, Sir James, cases of osteitis deformans, 676
 Palmer, Dr. on aconite poisoning, 64
 Pancoast, Prof. Joseph (of Philadelphia), obituary notice of, 398
 Pancreas, abscess of, Dr. Norman Moore's cases of, 105
 removal of a cyst of the, 150
 Paracentesis thoracis, *vide* Thoracocentesis
 Paralysis, electrical treatment of, Dr. de Watterville on, 407, 437
 Parangi disease of Ceylon, Dr. Milroy on Dr. Kynsey's report on the, 29
 Parasitic origin of disease, "Bacillus" and Mr. Milligan on, 566
 skin-disease, *vide* Skin
 Parasitic pathology, indication of treatment from the, 583
 Mr. H. O. Thomas on an old writer on, 594
 Paris, weekly returns of mortality of, 13, 41, 68, 97, 125, 150, 179, 205, 232, 258, 284, 310, 337, 362, 386, 416, 447, 478, 502, 530, 562, 588, 614, 645, 667
 Dr. Besnier's report on the hospital mortality of, 533
 vide Hospitals
 population of, 73, 410, 540

Paris, night-service at, reports on the, 91, 419
 hydrophobia in, Dr. Dujardin-Beaumetz on, 216
 Parker, Mr. Rushton, cases of hernia, 118, 173, 226, 380, 524, 555, 581
 Mr. R. W. on thoracocentesis, with injection of air, 499, 508
 Parkes Museum of Hygiene, report on the, 124
 proposed incorporation of the, 417
 Parliamentary medical affairs, 207, 364, 450, 532, 563, 648, 669
 Parrot, Prof. on separation of cranial bones in meningitis, 285
 on treatment of aphthous vulvitis, 310
 Parsons, Dr. on the Hoo Sanitary District, 670
 on enteric fever at Bodmin, 671
 Parvin, Dr. on secondary puerperal metrorrhagia, 565
 Pasteur, Dr. the "microbes" of, Dr. Jousset de Bellesme on, 451
 reception of, at the French Academy, 477
 Patent medicines, Mr. Warton on the mischief of, 532
 Pathological Society, reports of meetings of the, 19, 76, 104, 185, 238, 291, 368, 420, 454, 536, 621
 annual meeting of the, 14
 observations on organisation of work at the, 614
 of Dublin, notices of meetings of the, 63, 127, 179, 231, 285, 386
 Pathology, changing aspects of, Prof. Marchand on the, 36
 Pawlick, Dr. on sounding the ureters, 514
 Peacock, Dr. Thomas Beville, obituary notice of, 615, 678
 Peabody Donation Fund, report on the, for 1881, observations on the, 200
 Pearce, Dr. Ravenhill, death of, 80
 "Peculiar People," judgment of Court for Cases Reserved concerning the, 334
 Penzold, Dr. on enumeration of blood-corpuscles, 99
 Pereira, Dr. on beri-beri, 44
 Peritoneum, encysted dropsy of the, Mr. Thornton on, 104
 hydatids of the, Mr. L. Tait's cases of, 287
 Pertussis, the bromides and chloral in, 532
 Pessaries, Dr. Funk on the abuse of, 340
 Petersburg Foundling Hospital, cases of diphtheria in, 631
 Petit, Dr. on Porro's operation, 358
 Pharmacy and pharmacists (English), observations on, 585
 Philip, Rev., M.D. death of, 162
 Phosphates, administration of, in pregnancy, Dr. Delattre on a case of, 387
 Phosphorus, poisoning by, case of, 303, 342
 Phthisis, the physiognomy of, Mr. Galton on, 283
 cavities in, Dr. William Ewart on, 271, 323, 405, 434
 effects of Indian hill-sanitaria on, Deputy Surgeon-General Ewart on, 59
 artificial feeding in, Drs. Debove and Dujardin-Beaumetz on, 72, 479
 temperature in, influence of albuminuria on the, Dr. C. T. Williams on, 318
 without sputa, Dr. Lediard on, 328
 the pre-physical sign stage of, Dr. Eskridge on, 365
 vide Tubercle
 Physicians, Royal College of (of London), historical sketch of the, Dr. Fowler's, 170
 pass-lists of the, 123, 134, 241, 485
 resolution of the, on hom  opathy, Dr. Dudgeon on the, 47
 notices of meetings of the, 123, 260
 amended by-laws and regulations of the, 260
 Physicians and Surgeons, Royal Colleges of (of Edinburgh), pass-lists of the, 187, 512
 Physicians, King and Queen's College of (in Ireland), pass-lists of the, 79, 188, 293, 424, 541, 653
 Pigmentation of the skin, anomalies of, Dr. McCall Anderson on, 56
 Pirogoff, Prof. Nicholas, obituary notice of, 51
 Pityriasis, Prof. Hardy's applications in, 143
 Pityriasis versicolor, Dr. McCall Anderson on, 549
 the parasite of, 601
 Plaster-of-Paris bandage, removal of, 552
 Pleurisy, paracentesis in, Dr. Bowditch on, 419
 Dr. Finlay on a case of, 356
 double h  morrhagic, Dr. Churton's case of, 652
 Pneumonia, peculiarity of urine in a case of, 206
 prevention of recurrence of, Dr. Rhoads on, 597
 croupous, in children, Dr. Ashby on, 297, 351
 Pneumothorax, acute perforative, Dr. G. Johnson on a case of, 264
 Poisoning, case of accidental, at Guy's, 40
 vide Aconite, Arsenic, Cyanide of Potassium, Lead, Mercury (ammonio-chloride), Oxalic acid, Phosphorus, Snake, White-lead
 Poisons, dispensing of, in red papers, 135
 Pollard, Dr. on a case of ataxy in a child, 410
 Surgeon-Major W. H. E. death of, 458

- Polypi, *vide* Nose, Rectum
Ponick, Prof. on the infective character of actinomycosis, 640
Pope, Mr. John Robinson, death of, 423
Popow, Dr. on the corpus luteum, 567
Porro's operation, Dr. Petit on, 358
Post-mortems, question of right of making, in hospitals, 587, 614
Potain, Prof. on rheumatic oedema, 139
on rheumatismal Pott's disease, 163
on anasarca of nervous origin, 287
Poulet, Dr., Treatise on Foreign Bodies, notice, 18
Poultry, "drawn" and "undrawn," 394
Powell, Dr. Douglas, dissection of nerves in Addison's disease, 537
Prater, Dr. Augustus, death of, 24
Pregnancy, administration of phosphates in, Dr. Delattre on, 387
vomiting in, Prof. Carl Braun on, 387
albuminuria and eclampsia during, Dr. Ingerslev on, 229
abdominal, experimental production of, Prof. Leopold on, 41
Prize essays, observations on, 470
Prostate, enlarged, electrolysis in, suggestion as to, 380
colloid scirrhus of, specimen of, 421
Prostatic obstruction, Mr. Harrison on the treatment of, 379
Prurigo, lotion for, 62
of Hebra, Dr. Crocker's case of, 650
Pruritus, Dr. McCall Anderson on, 55
Puerperal fever, prosecution for conveying contagion of, 95
Puerperal metrorrhagia, Dr. Parvin on, 565
state, cardiac murmurs in the, Dr. Williams on, 291
Pugsley, Mr. Lutley, death of, 514
Pulmonary cavities, Dr. Ewart's lectures on, 271, 323, 405, 434
Pulse, slow, case of, 43
Pyelitis, *vide* Kidney
- Q
- Quinine, administration of, in enemata, 173
Quiniodine, borate of, advantages of the, 620
- R
- Radford, Dr. Thomas, obituary notice of, by Dr. Duncan, 138
Radius, congenital absence of the, 622
Rag-sorters, outbreak of small-pox among, 589
Railway accident, alleged conspiracy in relation to a, 120
Mr. Brudenell Carter on, 140
Mr. Dale on, 222, 232
Ranula, Mr. Lockwood's case of, 329
Rattle-snake poison, Dr. Filho on the, 154
Recklinghausen, Prof. on multiple fibromata of the skin, 382
Reclus, Dr., *De la Syphilis du Testicule*, notice, 313
Recruiting duties of army medical officers, 383
Rectum, disseminated polypi of the, specimen of, 539
cancer of the, palliative treatment of, Prof. Verneuil on, 235
obstruction of the, from plum-stones, 562
Registration returns for Scotland, in 1881, 12, 149, 531
in 1882, 230, 414, 529, 613
for England and Wales, in 1881, 174, 255
in 1882, 527
for Berlin, in 1881, 313
Renner, Dr. on hereditary lead-poisoning, 417
Retina, detachment of the, Dr. Wolfe's case of, 252
Reynolds, Prof. treatment of ophthalmia neonatorum, 235
Dr. Emerson, Experimental Chemistry, notice, 341
Rheumatic arthritis of the knee, Dr. H. Jones on opium in, 631
Rheumatism, death from pyæmia in, case of, 6
Pathology and Treatment of, Dr. MacLagan on, review, 74, 128
iodide of potassium and quinine in, Dr. Greenhow on, 650
salicylic acid in, discussion on, observations on the, 91
Prof. Flint on, 234
hyperpyrexia in, the Clinical Society's report on, 582, 590
Riberi Prize, subject for the, 371
Ribs, fracture of, from muscular action, cases of, 479
Richards, Dr. Vincent, experiments on snake-poisoning, observations on his, 93, 233, 449
suggestions on the treatment of snake-bites, 125
Richardson, Dr. B. W. on the seed-time of health, 618
Rickets, etiology of, Mr. Morgan on the, 658
Ringer and Sainsbury, Drs. action of alkalies on the frog's heart, 675
Ringworm of the head, Dr. McCall Anderson on, 375
the parasite of, 601
- Roberts, Dr. F., Clinical Lectures on Diseases of the Abdomen, 27, 85, 191, 245, 349, 519, 629
Robinson, Dr. O. on the inoculation of tuberculosis, 60
Dr. Beverley, Treatise on Nasal Catarrh, review, 288
Robson, Mr. antiseptic treatment of mammary abscess, 277
Roosa, Prof. St. John, on removal of foreign bodies from the eye, 45
on removal of foreign bodies from the ear, 101
Rosenstein, Dr. views of, on Bright's disease, 639
Ross, Dr., Diseases of the Nervous System, review, 209
Rütheln, Mr. Cripps Lawrence on, 540
Rowland, Dr. Hugh Mortimer, death of, 570
Royal Free Hospital, cases treated at the, 6, 118, 302
Russell, Dr. James, cases of suspended cerebral function after epileptic fits, 3, 58
on a case of hysterical retention of urine in a man, 353
on the management of epidemic diseases at Glasgow, 484
Rye-grass, swallowing and expulsion of an ear of, 264
- S
- Sacrum, disease of the, in a child, specimen of, 537
Salford, sanitary condition of, in 1880, 100
Salicylic acid in rheumatism, observations on the discussion on, 91
Prof. Flint on, 234
Saliva, variations of, in disease, Dr. Fenwick, 397
Samaritan Hospital, observations on the report of the, 525
Dr. Savage's comments on the, 621
Sands, Dr. on caution in the use of iodoform, 652
Sangster, Dr. on a case of ichthyosis linguae, 369
Sanitary Assurance Association, annual meeting of the, 242
Sanitary works, urban and rural, 54, 244, 428
Sanitary Protection Association, annual meeting of the, 235
Sanitary Service, reorganisation of the, Dr. Willoughby on the, 535
Sarcoma, multiple, Mr. Anderson's case of, 408
Saundby, Dr. on paroxysmal hæmoglobinuria, 224
Savage, Dr. comments on the report of the Samaritan Hospital, 621
Sayre, Prof. treatment of spinal disease by, critical observations on the, 201
Scarlatina, retro-pharyngeal abscess after, cases of, 287
etiology of, Dr. Eklund on the, 97
increase of the infective character of, Dr. A. Carpenter on, 265
proposed convalescent homes for, 332, 835
return of deaths from, in Paris, 534
Schatz, Dr. on measurement of intra-abdominal pressure, 254
Schmid, Dr. experiments on resection of the lung, 228
Schroeder, Prof. on excision of cancerous uterus, 259
the three hundred cases of ovariectomy of, 477
Schwann, Prof. Theodore, obituary notice of, 97, 158
Sciatica, nature of, Mr. Hutchinson on the, 83
elongation of the nerve in, Dr. Gillette on, 551
Sclerotomy, discussion on, at the Ophthalmological Society, 641
Scorbutus, the urine in, Dr. Kretschy on, 341
Scotland, registration returns for, *vide* Registration
Scrofula, effects of Indian hill-sanitaria on, Dr. Ewart on, 58
and tuberculosis, Dr. Grancher on, 150
and its Gland Diseases, Mr. Treves on, review, 157
Seamen's Hospital, report of, for 1881, 229
Sea-water, use of, in manufacture of bread, 294
Sebaceous glands, functional affections of the, 168
Seborrhœa, Dr. McCall Anderson on, 168
Semon, Dr. on removal of laryngeal growths, 593
Senator, Prof. albuminuria in health and disease, 175, 332
Sequestra, absorption of, Prof. Lannelongue on, 649
Shears, Dr. Arthur, death of, 162
Shepherd, Dr. George, death of, 458
Sigmoid flexure, cancer of the, specimen of, 536
Simon, Dr. Jules, on administration of belladonna to children, 262
Professor Oscar (of Breslau), obituary notice, 393
Sinclair, Sir Edmund Burrows (of Dublin), obituary notice, 364, 370
Skeleton, asymmetry of, Mr. Gould's specimen of, 538
Skin, diseases of the, Dr. McCall Anderson on the diagnosis of, 1, 55, 115, 219, 246, 298, 375, 549
classification of the, 55
atrophy of the, Dr. McCall Anderson on, 55
anomalies of pigmentation of the, 56
parasitic affections of the, 293, 375, 549, 601
a new parasitic disease of the, 450
- Skin-glands of the dog, tumour from the, Dr. Creighton on a, 77
Skull, compound fracture of, Mr. Beck's case of, 172
Mr. Lucas's case of, 497
Sleep, prolonged, the Rouen case of, 42
Small-pox, pre-eruptive stage of, Mr. Makuna on the, 495, 551, 579, 606, 632
in the French and German armies, 310
return of deaths from, in Paris, 534
epidemic of, at Berlin, Dr. Guttmann on an, 634
ectrotic treatment of, Mr. Makuna on the, 538
outbreak of, among rag-sorters, 589
Hospital for, at Plaistow, working of the, 203
vide Metropolitan Asylums Board
statistics of, in Vienna, 594
Smith, Dr. Heywood, on hyperplasia and fissure of cervix uteri, 193
Dr. R. Charnley, on cases of poisoning by lead dichromate, 6
Dr. Stephen, Manual of Operative Surgery, review, 47
on the abuse of the drainage-tube, 451
influence of antiseptics on the period of amputation, 648
Dr. Walter, case of peculiar urine in pneumonia, 206
Dr. A. A. clinical observations on diabetes, 506
Mr. T. case of aneurismal varix, 594
Surgeon-Major Dr. Frederick Hodgkinson, death of, 626
Snake-poisoning, permanganate of potash in, Dr. Richards' experiments on, 93, 233, 449
Dr. Richards on treatment of, 125
vide Rattle-snake
Societies (medical) amalgamation of, Mr. C. Hawkins on the, 263
vide Clinical, Epidemiological, Gynaecological, Harveian, Health (Medical Officers of), Midland, Obstetrical, Odontological, Ophthalmological, Pathological
Sonsino, Dr. on filaria sanguinis hominis in Egypt, 494, 522, 553
on the non-identity of bilharzia and anchyllostoma, 620
South, Mr. John Flint, obituary notice of, 50
Southampton, sanitary condition of, in 1880, 531
"Sparkling novelties," 303
Spelling reform, Dr. Harley on a national, 31
Mr. Butter's objections to, 109
Spence, Prof. James (of Edinburgh), obituary notice of, 653
Spiegelberg, Prof. (of Strasburg), obituary notice by Dr. Duncan, 138
Spina bifida treated by iodine, Mr. Pearce's case of, 510
Spinal cord, new tract of degeneration of, Dr. Hadden on a, 420
theca of the, wounds of, Mr. Holmes on, 507
tumour pressing on the, specimen of, 538
Spine, fracture of, Prof. Bennett's cases of, 386
latent fracture of the dorsal, Dr. Barling's case of, 124
Pott's rheumatic disease of the, Prof. Potain on, 162
disease of the, Dr. Sayre's treatment of, critical observations on, 201
concussion of, curious effect of, on the pulse, 484
Spleen, physical examination of the, Dr. Roberts on, 520
enlarged, fluoric acid in, 486
Splenotomy, Mr. Haward's paper and discussion on, 394
Splints, tin-plate, Mr. Taylor on, 15
Sponge-grafting, Mr. Hall on a case of, 659
Squire, Mr. Balmanno, cases of erythema iris, 212
on a new urethral syringe, 605
Starr, Dr. Thomas Henry, death of, 107
Steel, Dr. Graham, Physical Signs of Cardiac and Pulmonary Disease, notice, 535
Steele, Mr. on caries of teeth in relation to injuries, 597
Stein, Dr. Tumours of the Bladder, notice, 535
Sterility, dilatation in, discussion on, 160
Stethoscope, Dr. Cousins, on a convertible, 4
folding, Evans and Wormull's, 161
Stewart, Mr. on infusion of malt as infants' food, 652
Still-born children, false certificates for, 143
Stomach, physical examination of the, Dr. Roberts on, 349
absorbent activity of the, 639
hour-glass contraction of the, Dr. Carrington's cases of, 105
Stone, Dr. Charles H. death of, 372
Stone, rectal examination for, in children, Prof. Volkmann on, 366
Stricker, Prof. article of, on Disturbed Nutrition in Inflammation, review, 367
Sturrock, Dr. David Ramsay, death of, 268
Styloid process, an abnormal, 504
Sudamina, Dr. McCall Anderson on, 246
Sudoriparous glands, functional affections of, Dr. Anderson on, 219, 246
Sulphurous acid as a disinfectant, 449

Supra-renal capsules, disease of, without bronzing, specimen of, 20
 in Addison's disease, Dr. Goodhart on specimens of, 185
vide Addison's disease
 Surgeons, Royal College of (of England), pass-lists for the primary, 23, 51, 79, 371, 399, 424, 457, 485, 513, 541, 569
 pass-lists for the diploma of the, 79, 167, 425, 457, 541, 569
 pass-lists for the fellowship of the, 598
 examination questions for the diploma of the, 79, 425, 541,
 for the primary, 372, 458, 513
 for the fellowship, 569, 598
 proposed changes in the examinations at the, 419, 501
 observations on the, 557
vide Examinations
 Surgeons, Royal College of (of Edinburgh), pass-lists of the, 187, 513
 Surgeons, Royal College of (in Ireland), pass-lists of the, 23, 510
 Sutcliff, Mr. John, death of, 107
 Sweat-glands, affections of, Dr. Anderson on, 219
 bloody, Dr. Anderson on, 219
 Sweden, new sanitary barracks in, 233
 Swyer, Dr. R. E. death of, 211
 Syphilis, treatment of, Dr. G. H. Fox on, 564
 hypodermic injection of sublimate in, Dr. Martineau on, 28
 cerebro-spinal, Dr. Althaus on a case of, 595
 Syringe, a new urethral, Mr. Balmanno Squire on, 605

T

Tait, Mr. Lawson, on death due to tapping in ovariectomy, 267
 cases of hydatid of peritoneum, 267
 Tannin, formula for, at the Leipsic Polyclinic, 620
 wine (St. Raphaël), 22
 Taylor, Surgeon-Major Joseph Marmaduke, death of, 52
 Dr. William Eeles, death of, 346
 Teeth, question of extracting, during pregnancy, 597
 caries of, in relation to mechanical injury, 597
 Temperature, paradoxical, thermometrical measurement of, Dr. McCraith on, 78
 local, of the joints, M. Nicaise on the, 570
 Testis, contusion of the, Profs. Monod and Terrillon on, 73
 Tetanus neonatorum, Mr. Davies on a case of, 607
 Thames, pollution of the, report on, 153
 Therapeutics, Trousseau and Pidoux, translated by Lincoln, review, 236
 Thermometer, Ferris's clinical, 161
 Thiry, Prof. on clinical teaching, 16
 Thomas, Dr. Gaillard, on the removal of benign tumours of the breast, 493
 Mr. Henry, death of, 570
 Mr. H. G. on the parasitic origin of disease, 594
 Thompson, Sir H. case of removal of tumour from the bladder, 482, 610
 Thoracentesis, with injection of air, Mr. R. W. Parker on, 499, 508
 escape of a drainage-tube after, 544
 in pleurisy, Dr. Bowditch on, 419
 Thoracic cancer, Dr. Blomfield's case of, 521
 Thornton, Mr. Knowsley, on encysted dropsy of the peritoneum, 104
 threatened suppression of urine after ovariectomy, 211
 case of nephrectomy by abdominal section, 284
 case of extra-uterine foetation, 454
 Surgeon-Major Daniel, death of, 542
 Thorp, Mr. John, death of, 580
 Thyroid cartilage, removal of bodies impacted in the, Mr. Holmes on, 596
 gland, tumour of, specimen of, 422
 paralysis of glottis from a, 421
 Tibia, congenital absence of the, 622
 Tinea capitis, Dr. McCall Anderson on, 375
 imbricata, Dr. McCall Anderson on, 550
 Tivy, Mr. case of radical cure of double inguinal hernia, 568
 Tongue, ichthyosis of the, Dr. Sangster on a case of, 369
 Tonsillitis (follicular) and diphtheria, Dr. Jacobi on, 216
 chronic, chromic acid in, 398
 Tooke, Mr. Frederick Randolph, death of, 216
 Tottenham Training Hospital, cases treated at the, 607
 Trachelo-raphé, *vide* Emmet's operation
 Tracheotomy, mediastinal emphysema after, Dr. Champneys on, 290
 Treves, Mr., Scrofula and its Gland-Diseases, review, 157

Treves, Mr. lecture of, on fashionable female dress, 227, 230
 Trichinised meat, futility of inspection of, 108
 Mr. Phinn on the examination of, 326
 Trichorexis nodosa, Dr. Anderson on, 115
 Tricuspid incompetency, Dr. Fenwick on a specimen of, 186
 Tripe, Dr. on alteration of the law on revaccination, 343
 Trousseau and Pidoux, Therapeutics, translated by Lincoln, review, 236
 Tubercle, changing views of the pathology of, 37
 the bacillus of, discovery of, by Dr. R. Koch, 411
 critical appreciation of the, 441, 526
 demonstration of the, 499
 Dr. Dale on the, 507
 detection of, in the sputa, Dr. Ehrlich's method, 559
 the organisms of, Prof. Baumgarten on, 502
 Tuberculosis, inoculation of, Dr. Robinson on, 60
 and scrofula, Dr. Grancher on, 150
 meningeal, Dr. Mickle on, 377
vide Phthisis
 Turner, Dr. Roger, death of, 52
 Dr. F. C. case of traumatic abscess of liver, 369
 Twins, long interval between the birth of, 33
 Typhoid fever, deaths from, in Paris, 534
 in India, Sir J. Fayer on, 545, 573
 at Bodmin, Dr. Parsons on, 671
 antipyretic treatment of, Prof. Flint on, 261
 rapid increase of weight after, 569
 perforation of the colon in, specimen of, 105
 perforation of the rectum in, case of, 113
 diarrhoea of, turpentine in, 35

U

Unciform bone, dislocation of the, case of, 521
 University College Hospital, cases treated at the, 172
 Unwin, Mr. William, death of, 162
 Ureters, sounding the, Dr. Pawlick on, 514
 Urethra, caruncle of the female, Dr. Goodell on, 340
 Urine, hysterical retention of, in a man, Dr. Russell on, 353
 incontinence of, in children, formula in, 540
 Uterus, retention of menses in a double, Dr. Galabin's case of, 289
 excessive susceptibility of the, Prof. Verneuil on, 158
 retroversion and anteversion of, Mr. Browne on, 15
 displacements of the, Dr. Alexander on the treatment of, 327
 rupture of the, drainage in, Dr. Felsenreich on, 14
 cancer of the, Prof. Schroeder on excision in, 259
 propositions on, Dr. Funk's, 331
 removal of the organ for, Dr. Cushing on, 637
 by the vaginal method, Dr. Hahn on, 669
 fibroids of the, spaying for, Dr. Wiedow on, 308
 cervix of the, ganglion of the, Dr. Jastreban on, 48
 areolar hyperplasia and fissure of the, Dr. H. Smith on, 193
 Emmet's operation on the, discussion at the Obstetrical Society on, 304, 316

V

Vaccination, obligatory, in Switzerland, 35
 imperfect performance of, Dr. Bate on, 207
 efficacy of, Dr. Carpenter on, 154, 177
 Dr. McCraith's experience in, 172
 Dr. Burg's instrument for performing, 424
 direct from the calf, Mr. Browning on the working of, 96, 197, 214
 and revaccination, alteration of the law on, Dr. Tripe on, 343
 Vaccine eruption generalised, Dr. Guéniot on a, 549
 Van Buren, Prof. article of, on Inflammation, review, 367
 on litholapaxy, 419
 Varicocele, treatment of, Dr. Levis on, 45
 Vaseline, medicinal emulsions of, 15
 Verneuil, Prof. on the susceptibility of the uterus, 158
 palliative treatment of cancer of the rectum, 235
 Victoria, proportion of the sexes in, 594
 Viability of six-months children, Prof. Spaeth on, 654
 Vienna, expenses of medical study at, 399
 hospitals of, in 1880, 175
 statistics of small-pox in, 594

Vieth, Dr. method of milk-analysis of, 498
 Visual centres of cerebral cortex, localisation of, Dr. Mickle's case of, 89
 Vineberg, Dr. on leprosy in the Sandwich Islands, 630
 Vitiligo, Dr. McCall Anderson on, 57
 Vivisection, Lord Coleridge's views on, criticised, 145
 Act, Dr. Gerald Yeo on the working of the, 256
 Vocal cords, paralysis of, from aneurism of aorta, case of, 538
 Volkmann, Prof. on rectal examination for stone in children, 366
 Voisin, Dr. on detention of criminal lunatics, 430
 Vomiting in pregnancy, Prof. C. Braun on, 337
 Vulvitis, aphthous, treatment of, 310

W

Waghorn, Surgeon-Major Dr. Frederick, death of, 372
 Waists of ladies, "O" on the, 315
 Walshe, Dr., Dramatic Singing Physiologically Estimated, review, 453
 Warner, Dr., cases of defective development in children, 61, 90, 144
 Water, potable, valuation of impurities in, 153
 Water-supply, metropolitan, monthly reports on the, 41, 206, 285, 503, 530, 645
 observations on the state of the, 381
 pollution of the, report on, 153
 Watson, Mr. Spencer, case of eyeball tension, 265
 Watteville, Mr. De, on electrical treatment of paralysis, 407, 437
 West, Dr. on the establishment of a hospital at Nice, 604
 Whipple, Dr. and Mr. Haward, cases of nephro-tomy, 132
 case of aneurism of the aorta, 538
 Whisky, "Old Head Blend" Irish, 22
 White, Surgeon-Major Dr. Archibald, death of, 320
 White-lead manufacture, poisoning from, observations on, 413
 Whiteley, Mr. R. H. death of, 598
 Whitla, Dr., Elements of Pharmacy, review, 452
 Whitson, Dr. on the operation for hare-lip, 578
 Whittall, Mr. on the rates of fatal accidents, 39
 Willan, Dr. L. R. death of, 570
 Williams, Surgeon B. H. death of, 216
 Dr. J. on cardiac murmurs in the puerperal state, 291
 Dr. C. T. on the influence of albuminuria on phthisis, 318
 Dr. Joseph, obituary notice of, 371
 Dr. on employment of the insane, 357
 Dr. John, on the natural history of dysmenorrhoea, 567, 669, 677
 Mr. Owen Gething, death of, 570
 Williamson, Dr. Robert Isherwood, death of, 52
 Willoughby, Dr. on reorganisation of the sanitary service, 535
 Wilson, Dr. F. R., Practical Guide for Inspectors of Nuisances, notice, 18
 Dr. James, Treatise on Continued Fevers, review, 102
 Dr. John Grant, death of, 426
 Prof. James George (of Glasgow), obituary notice of, by Dr. Duncan, 139
 Wines, "unfermented," Mr. Dixon on, 238
 Dr. Norman Kerr on, 263
 Wolfe, Dr. case of detachment of the retina, 252
 Diseases and Injuries of the Eye, review, 392
 Wolffhügel, Dr. on sulphurous acid as a disinfectant, 449
 Wülfer, Dr. on Billroth's cases of extirpation of goitre, 121
 Women, Diseases of, Dr. Edis on, review, 17
 Medical, *vide* Medical women
 Wood, Mr. Francis Henry, death of, 268
 Workhouse medical officers, duties and remuneration of, 390
 Wynn, Dr. on digital examination of the eustachian tube, 156

Y

Yeates, Dr. George, death of, 242
 Yeo, Dr. Gerald, on the working of the Vivisection Act, 256
 Yew, is it poisonous? Dr. Nicholson's query, 263
 Dr. Alford and Mr. Millican's replies, 314

LIST OF ILLUSTRATIONS.

1. Dr. Ward Cousins' Convertible Stethoscope, 4
2. Dr. Howard's Ambulance Service, 112
3. Ferris and Co.'s New Clinical Thermometer, 161
4. Mr. Anderson's case of Multiple Sarcoma, 409
5. Mr. Balmanno Squire's Urethral Syringe, 604

END OF VOLUME I. 1882.

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